

# Power Solution Industries



## PRODUCT MANUAL

CABLE  
TRAY  
SYSTEMS

CABLE  
LADDER  
SYSTEMS

CABLE  
TRUNKING  
SYSTEMS

STRUCTURAL  
METAL  
FRAMING  
SYSTEMS



ISO 9001 : 2000 Certified

A Cable Management System



EDITION 2009

## IMPORTANT INFORMATION

For Updated Information on PSI cable management products, edition 2009 of Product Manual and Product catalogues should be referred. All previous editions are withdrawn and superceded.

## CONTACT DETAILS

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PSI Products on display at a trade exhibition



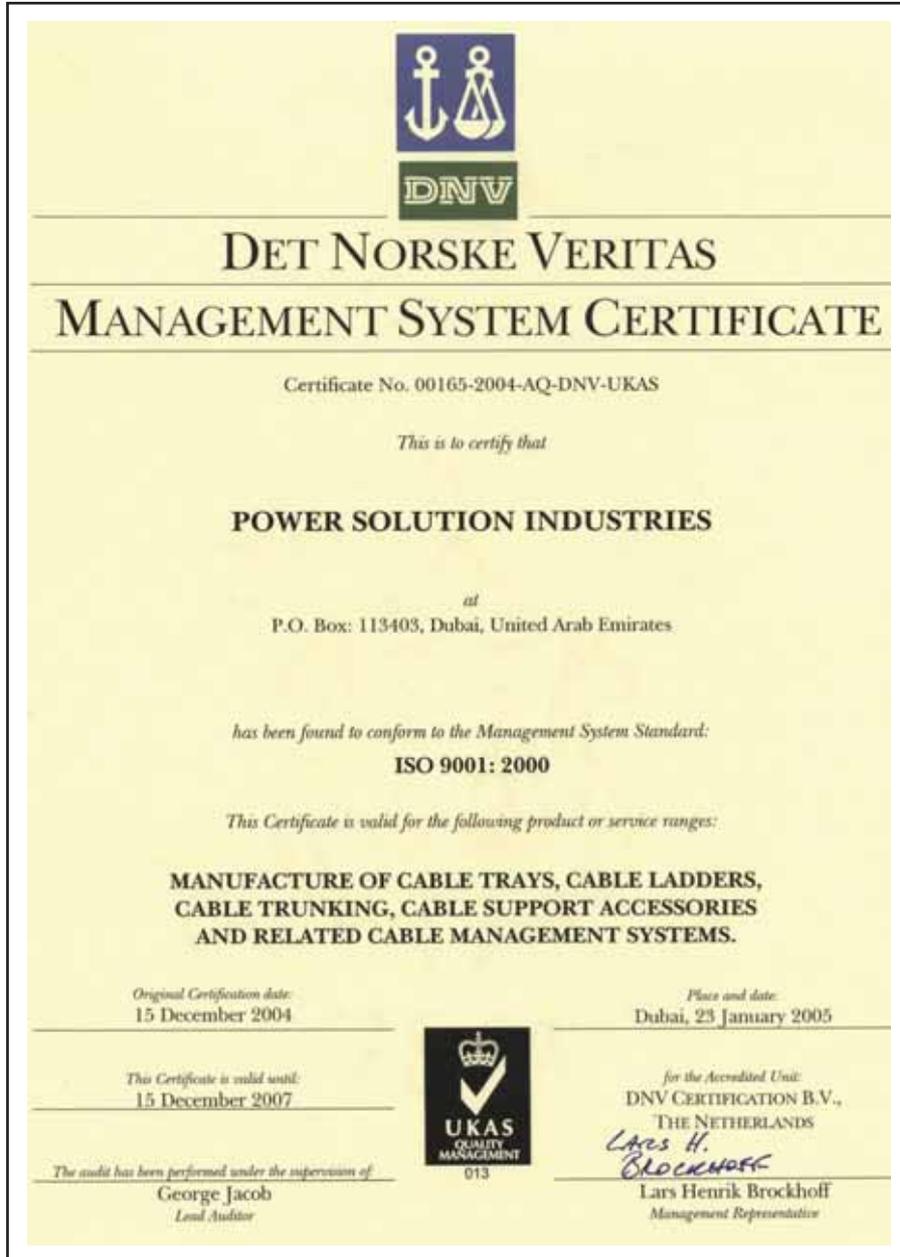
State-of-the-art technology used for production to meet international standards



PSI Provides strong customer support to its clients



PSI has strong logistics for distribution



### **QUALITY ASSURANCE**

Power Solution Industries quality plan conforms comprehensively to ISO 9001:2000. The quality assessment and reviews are carried out by DET NORSKE VERITAS.

The organization defines its quality objectives at the various levels of the company in order to achieve continual improvement in quality management system.



## INTRODUCTION

### Power Solution Industries

**Power Solution Industries** is an ISO 9001: 2000 certified company, which is committed to a quality policy of achieving "Excellence in Engineering."

Cable management systems produced by Power Solution Industries are manufactured to the appropriate international standards detailed in the manual.

The company has developed its manufacturing and trading activities in U.A.E., Saudi Arabia, Oman, Kuwait, Qatar & African countries and are actively serving their economies.

Power Solution Industries manufactures a comprehensive range of cable trays, cable ladders, cable trunkings and support framework systems at its factories in Dubai, Sharjah & Riyadh. These are high technology modern units fully equipped for higher productivity levels.

However, the company's greatest asset is the dedicated team of personnel who are empowered to use their engineering knowledge and technical skill to offer cable management products to the requirements of the construction industry. The company, which has already been involved in numerous prestigious projects, is continually improving quality and productivity performance for the benefit of existing and future clients.

Power Solution Industries is confident of its team ability to satisfy and frequently exceed customer's expectations for quality and service. You are cordially invited to test our strong commitment to "Excellence in Engineering."

You stand our prime concern and ***"PSI stands by its commitment of Excellence in Engineering"***.

# *Quality Policy*

*"Excellence in Engineering"*



**POWER SOLUTION INDUSTRIES**



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## PREFACE

**Power Solution Industries** offers a comprehensive range of components forming the elements of a complete cable management system. The system offered comprises:

- Cable trays and cable ladders (conforming to BS EN 61537)
- Metal channel cable supports (conforming to BS 6946)
- Steel surface trunking (conforming to BS 4678 :Part 1)

When using this catalogue great care must be taken to establish all factors, which effect the environment in which the cable management system is being used. Where loading performance figures are stated, they are given in good faith based on average figures obtained by extensive testing of Power Solution Industries components. They are provided to assist in the system design process procedure adopted by customers but are given without accepting liability that components delivered may vary in performance. When a cable management system comprises of several different components, it will be necessary to check the system loading on all components. System designers should not extrapolate any results beyond the published data and if in doubt about the application of the product data, they should contact Power Solution Industries technical department.

***CABLE MANAGEMENT SYSTEMS ARE NOT DESIGNED FOR USE AS WALKWAYS OR TO SUPPORT INSTALLATION OR MAINTENANCE PERSONNEL.***





## MATERIALS AND FINISHES

**Power Solution Industries** offers its range of cable management products in a variety of materials and finishes to suit the environmental conditions where components will be installed. Choice of an appropriate material / finish is always an important consideration in system design because maintenance of components once installed will be extremely difficult. Clients will undoubtedly expect a long life for the installed system and the choice of appropriate material / finish must consider the expected prevailing atmosphere and its effect on the system components.

Mild steel is an economical material for load bearing structures but if the surface remains untreated, it would rapidly begin to show signs of corrosion even in only mildly aggressive environments. When mild steel corrodes, the iron content is converted to oxides (rust), this progressively changes the strong steel into weak oxides which rapidly reduces the load bearing capacity of the affected part. If mild steel is coated with zinc, not only is the steel protected by the envelope of zinc whose chemical corrosion rate is low but since zinc is higher in the electro-chemical series, the zinc will always pass into solution before the iron content of steel. The strength of the steel structure will not be weakened by corrosion until the zinc coating has been sacrificed. The length of time it takes for the zinc coating to dissolve is in proportion to the thickness of the coating and the aggressiveness of the environment in which it is exposed.

### ***Pre-Galvanised steel (PG) Mill Galvanised Steel.***

Whilst the mild steel is still in wide coil form at the steel mill, it is processed in a continuous operation to clean the steel and pass it through a bath of molten zinc which forms iron / zinc alloys and a coating of pure zinc on the surfaces of the steel which is then cooled and re-coiled. This means that the steel is galvanised before it is slit to width, cut to length, pierced and formed to shape. The coating cannot be allowed to become thick because it would split during the forming process. However, since zinc offers electro-chemical protection, it will offer protection for what might be considered unprotected edges where the flat material has been cut or pierced. This is an effective and economic anti corrosion finish suitable for interior applications except where there is continual high humidity and / or corrosive atmosphere.



## MATERIALS AND FINISHES

### *Hot Dip Galvanised Steel (HDG)*

To achieve this finish, components made from mild steel are cleaned and dipped into a bath of molten zinc after all the other manufacturing processes have been completed. Not only does this ensure that the whole of the component is coated, it offers the opportunity to develop a much thicker zinc coating than is possible with pre-galvanising. Power Solution Industries takes particular care to ensure that a coating to British standards is achieved and that the distortion of components is minimised. However, this is a hot working process and some distortion and surface roughness may be in evidence. Since the zinc thickness is triple that of pre-galvanised steel, the anti-corrosive properties are enhanced. This finish will be suitable for most exterior installations except where there is a very aggressive atmosphere.

### *Stainless Steel (SS)*

Stainless steel differs from mild steel. It contains a variety of alloyed elements, which very significantly reduce the rate at which the iron content will oxidise. The name "stainless" is a misnomer because many pollutants and chemicals will mark or stain the surface but this does not erode the strength of the steel as rusting weakens mild steel. To obtain good forming and outstanding corrosion resistance properties austenitic grades of stainless steel are used. They also have the property that they will withstand aggressive chemicals, used to wash down the processing areas where good hygiene is a high priority. The fact that stainless steel can maintain strength properties even when exposed to high temperature is also a valuable asset. This portfolio of useful properties makes stainless steel suitable for systems exposed to very aggressive atmospheres, including marine environments, high levels of pollution, caustic soda and temperatures of 1000deg C for periods long enough to give some integrity to electrical circuits in a fire emergency.

### *Epoxy Powder Coatings (PC)*

These coatings are applied to mild steel components. The coatings can be offered in a wide variety of colours to meet the architectural project requirements. The coatings themselves are resilient to damage and will withstand atmospheric pollution and ultra-violet exposure from sunlight. However, if the coating envelope is broken the steel substrate will have little defence to corrosive agents. A highly decorative appearance can be achieved but longevity of this finish cannot be guaranteed.



## MATERIALS AND FINISHES

### *Other Materials and Finishes.*

Apart from the standard materials and finishes listed Power Solution Industries can offer other materials and finishes, which are required for a specific project specification. Please contact our technical department to discuss fully any such situation and the effect that this may have on other data associated with components shown in our catalogue range.





## MATERIALS AND FINISHES

Power Solution Industries produces the components of its cable management system from materials to the following internationally recognised standards.

SUFFIX	TYPE	DESCRIPTION
PG	Pre Galvanised	To BS EN 10327, the substrate is mild steel Grade DX51D with yield >200 N/mm <sup>2</sup> . The zinc coating is applied before metal forming and the grade used Z275 implies a coating thickness of 20 microns.
HDG	Hot Dip Galvanized	>1.5mm thick steel Grade D11 to BS EN 10111 yield >200 N/mm <sup>2</sup> or <1.5mm thick steel to Grade DC01 to BS EN 10130 yield >200N/mm <sup>2</sup> is used to manufacture components, which are galvanized to the requirements of BS EN ISO 1461 generating a coating thickness of at least 65 microns
SS	Stainless Steel	Austenitic stainless steel to BS EN 10088 Grade 1-4401 is used which has 17% Chromium 12% Nickel & 2% Molybdenum analysis.
PC	Powder Coated	>1.5mm thick steel Grade D11 to BS EN 10111 yield >200 N/mm <sup>2</sup> or <1.5mm thick steel to Grade DC01 to BS EN 10130 yield >200N/mm <sup>2</sup> is used to manufacture components, which are coated with an epoxy powder. This will be in an agreed colour, offering a cosmetic finish with only limited anti-corrosive properties.

It is possible for **Power Solution Industries** to manufacture components of the product range in alternative materials to those listed above. For further information on these possibilities please contact our Technical Department.

### WARNING

- Cutting components on site may well impair their resistance to corrosion.
- Welding coated products may generate toxic fumes.
- Products must be stored in dry and well-ventilated conditions prior to installation.



## DESIGN CONSIDERATIONS

### *CABLE TRAY & LADDER SYSTEM*

Power Solution Industries offers a comprehensive range of cable tray and ladder products conforming to BS EN 61537. To design a safe and economical system, it is necessary to consider all the loads applied to the system and establish the criteria by which it will be judged.

### *LOADS APPLIED TO THE SYSTEM*

The weight of cables to be fixed on the system will provide the basic loading data. However, it is always advisable to consider that future system requirements can be expected and allow 20% for additions at a later date. The following should also be considered:

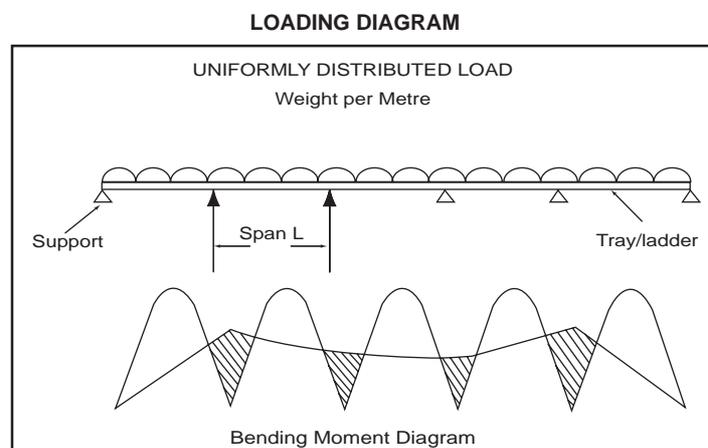
1. The capacity charts provided in this catalogue assume that loading is uniform, both along length and across width. If a point load is applied to the tray / ladder it will potentially have a significant effect and this must be quantified.
2. If components are incorporated in an exterior installation there may be other loading factors to consider, such as wind, ice and snow.

### *SAFE LOADING AND DEFLECTIONS*

Cable tray & ladder acts as a structural load carrying beam when installed horizontally. The loads imposed and the type and location of supports will create a pattern of bending moment in the structure. Stress will be induced and deflections (vertical displacements) will be observed.

A properly specified system will ensure that the stress does not exceed to that which is safe for the materials used in the components. BS EN 61537 specifies that published safe working loads can be increased by 1.7 times without system collapse.

A suitable installation will require choice of appropriate style of tray / ladder and the location of supports. Increasing the span (horizontal distance between supports) will always reduce safe load carrying capacity and increase deflection.





## DESIGN CONSIDERATIONS

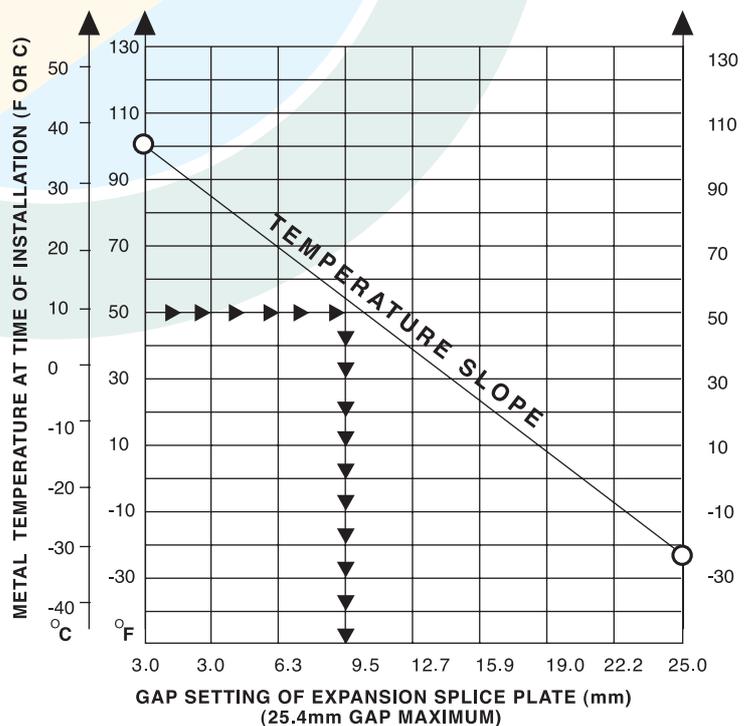
### LOCATION OF SUPPORTS AND CONNECTIONS.

Normally cable tray / ladder is connected together forming a continuous beam over several supports. A typical bending moment diagram shown on the previous page shows the following:

1. Bending moment is much larger in the end spans of the continuous beam than the intermediate spans; which will reduce the load carrying capacity in the end spans. If an installation requires full load carrying capacity along the whole length, than full capacity of the intermediate spans can be used if the end spans are reduced to 0.75L (length of intermediate spans).
2. Bending moment is zero at approximately 0.25L either side of the intermediate supports. These are therefore ideal places to locate connections between component lengths of cable tray/ladder. The installer should avoid placing connections in mid-span positions and at supports. These are positions of maximum bending moment.
3. The diagram shows a typical multi-span beam loading condition. If a loading condition occurs where there is only a single span loading condition it can be taken that the permissible load is reduced to 0.5 that shown for intermediate span in multi-span beams.
4. Only straight length beams are discussed above. When accessories (bends, tees, risers etc.) are involved in an installation they will require extra local support.

It is always recommended to use fish plates in conjunction with connectors, particularly when cable trays of greater than 200mm are used. Where earth continuity is an important consideration in a cable tray or ladder system, bonding jumper leads should be used.

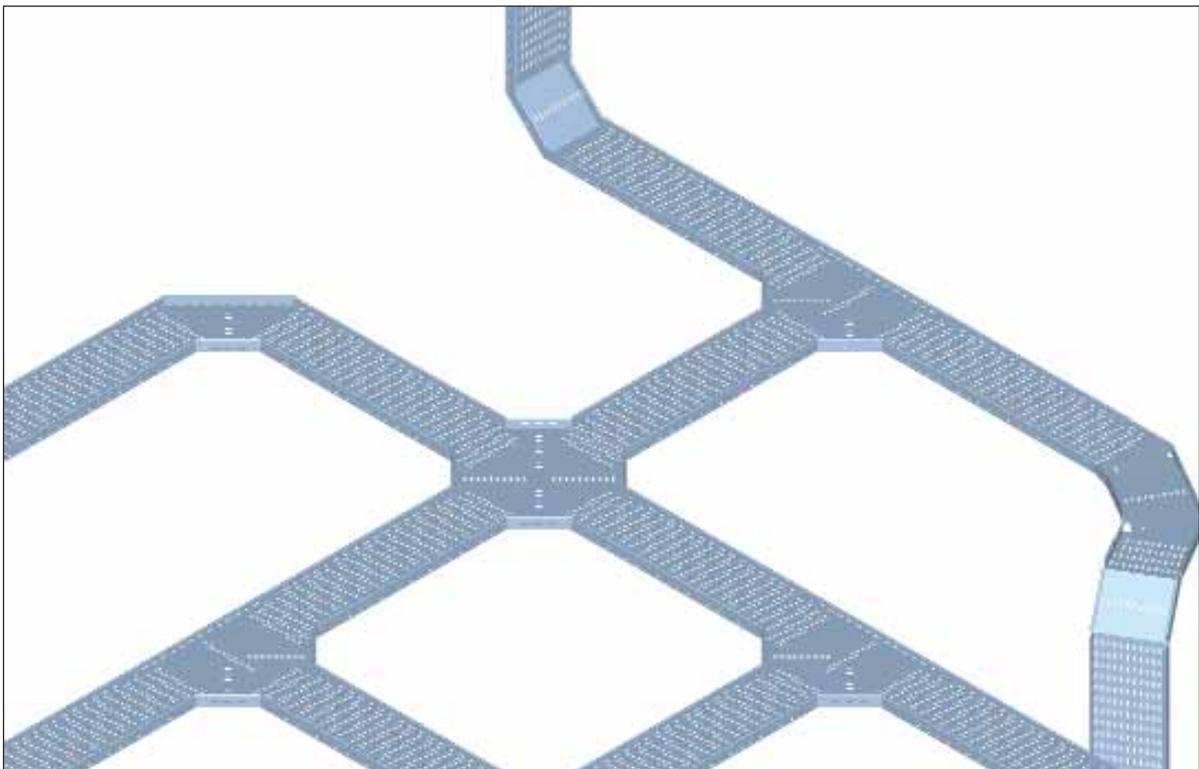
Cable ladders runs exposed to wide ambient temperature & the variation should incorporate expansion connectors. The chart below illustrates suitable gap setting.





## CABLE TRAY SYSTEMS

## CABLE TRAYS



## CABLE TRAY NETWORK

# LIGHT DUTY STRAIGHT FLANGE CABLE TRAYS

## FOR STRAIGHT LENGTHS AND ACCESSORIES

Range / Width (W)	Thickness (T)	Side Height (H)
All dimensions are in mm		
50 to 150	1.0	15
225 to 300	1.2	15
450 to 600	1.5	20
750 to 900	2.0	20

## STANDARD FINISHES

HDG	Hot dip Galvanized to BS EN ISO 1461:1999 (Formerly BS 729)
PG	Pre-galvanized to BS EN 10142 & 10143
PC	Powder Coating to suit clients requirements
SS	Stainless steel finish to required grades

Light duty straight flange cable trays are made in a standard length of 3 mtrs but can be produced in different lengths on request

Light duty straight flange cable tray accessories are made to standard radius of 300 mm but can be produced in 450 mm, 600mm and 900 mm as required

## ORDER PATTERN

To select the required component, please specify the type, component, width, finish. Angles can be mentioned wherever necessary.

### EXAMPLE:

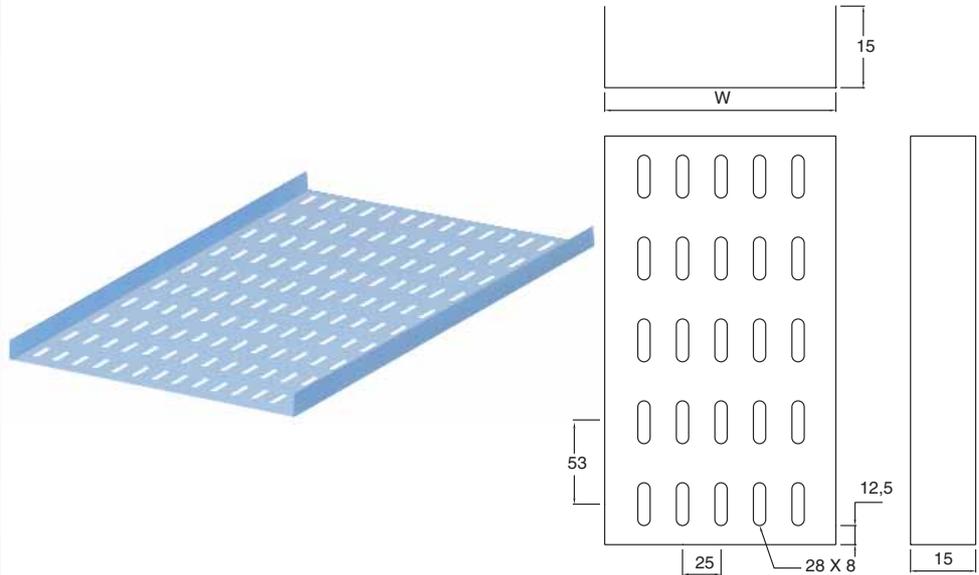
TYPE / COMPONENT / WIDTH / FINISH ( without angle)      LDT / COM / WIDTH / HDG  
 TYPE / COMPONENT / WIDTH / ANGLE / FINISH ( with angle)    LDT / COM / WIDTH / A / HDG

Covers for LDT are not shown in the manual but can be produced on request

**Note:** For special finishes consult our sales team, factory  
 For special sizes, gauges, flanges, consult our sales team, factory

## LIGHT DUTY STRAIGHT FLANGE TRAY-(LDT)

PART REF
LDT / CT/ 50 / Finish
LDT / CT/ 75 / Finish
LDT / CT/ 100 / Finish
LDT / CT/ 150 / Finish
LDT / CT/ 225 / Finish
LDT / CT/ 300 / Finish
LDT / CT/ 450 / Finish
LDT / CT/ 600 / Finish
LDT / CT/ 750 / Finish
LDT / CT/ 900 / Finish

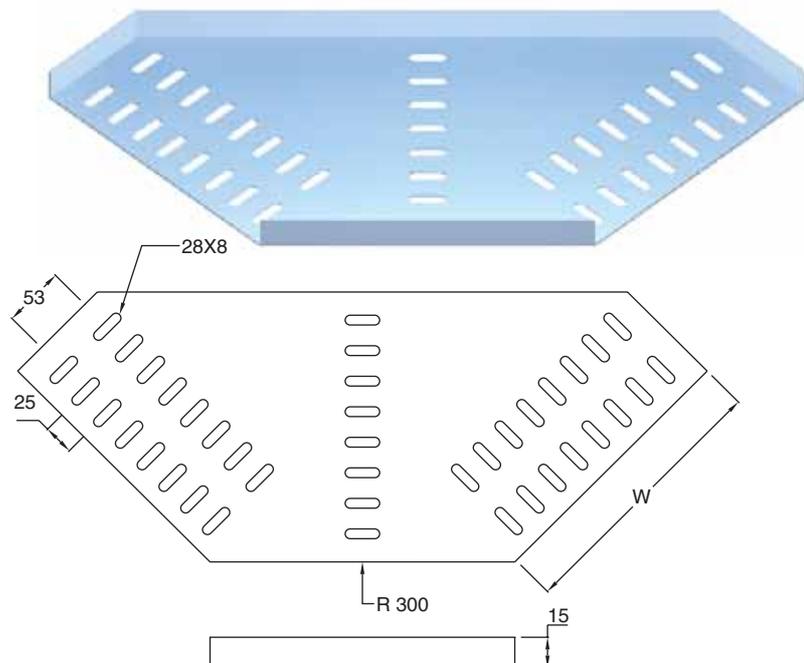


### CONNECTORS

LDT Cable trays and accessories are connected by fishplates. For fish plate details refer page 16 of the manual.

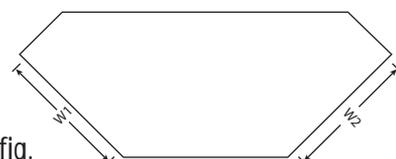
### LDT - ELBOW HORIZONTAL - 30° / 45° / 60° / 90°

PART REF
LDT/ EH / 50 / A / Finish
LDT/ EH / 75 / A / Finish
LDT/ EH / 100 / A / Finish
LDT/ EH / 150 / A / Finish
LDT/ EH / 225 / A / Finish
LDT/ EH / 300 / A / Finish
LDT/ EH / 450 / A / Finish
LDT/ EH / 600 / A / Finish
LDT/ EH / 750 / A / Finish
LDT/ EH / 900 / A / Finish



### LDT - UNEQUAL ELBOW HORIZONTAL - 30° / 45° / 60° / 90°

PART REF
LDT / UEH / W1/ W2 / A / Finish

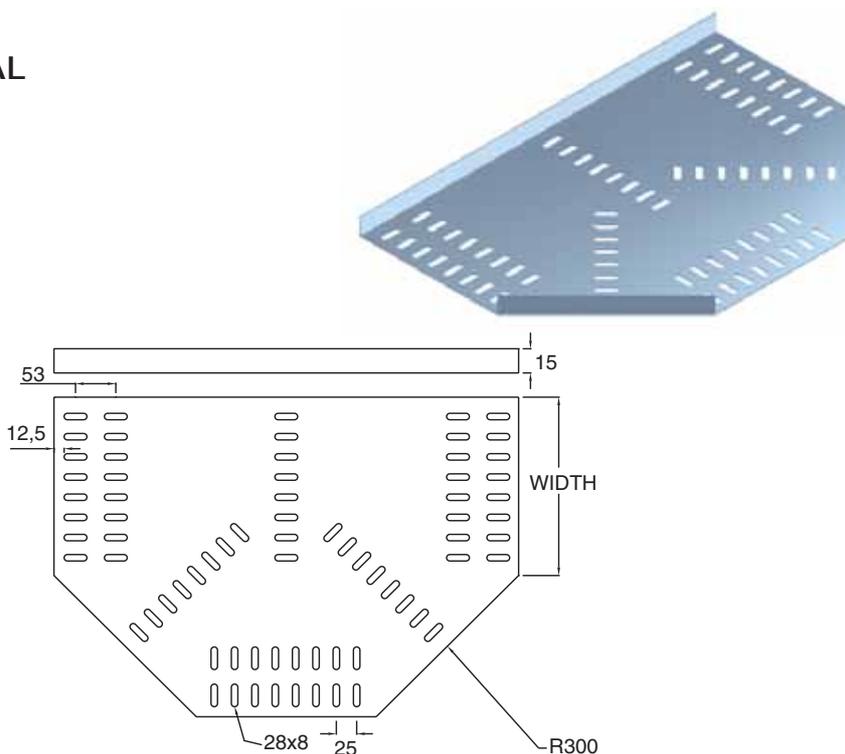


For Unequal Elbow specify the widths as W1 & W2 as shown in the fig.

# LIGHT DUTY STRAIGHT FLANGE CABLE TRAYS

## LDT - TEE HORIZONTAL

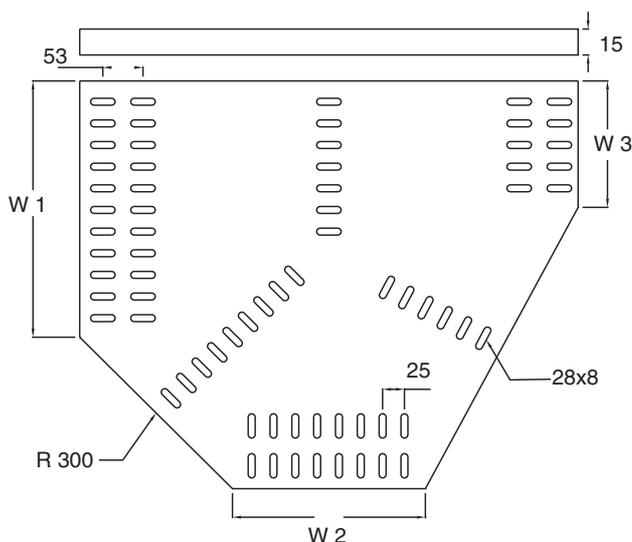
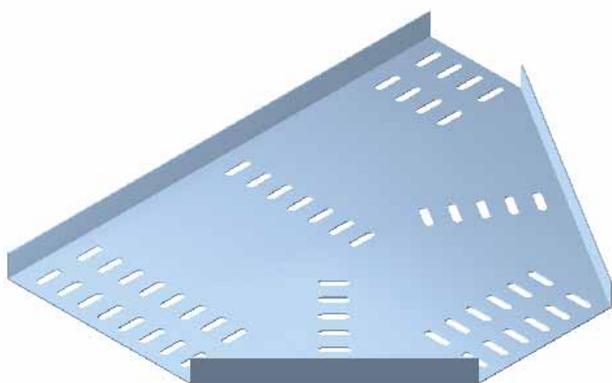
PART REF
LDT / TH / 50 / Finish
LDT / TH / 75 / Finish
LDT / TH / 100 / Finish
LDT / TH / 150 / Finish
LDT / TH / 225 / Finish
LDT / TH / 300 / Finish
LDT / TH / 450 / Finish
LDT / TH / 600 / Finish
LDT / TH / 750 / Finish
LDT / TH / 900 / Finish



For support system for the installation, please refer Metal strut framing system of this manual

## LDT - UN EQUAL TEE

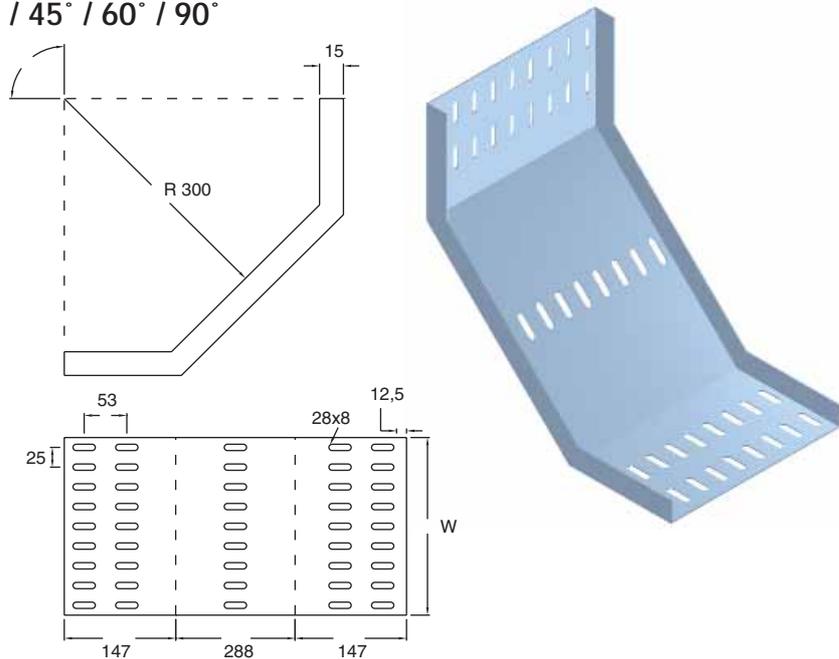
PART REF
LDT / UTH / W1 / W2 / W3 Finish



- For Unequal Tee, please specify widths in anti- clockwise direction as W1, W2, W3
- Thickness for Unequal Tee to be followed of the larger size. For details refer page 10.
- Bonding jumpers can be used for earthing connectivity. For details refer page 84

## LDT - INTERNAL RISER - 30° / 45° / 60° / 90°

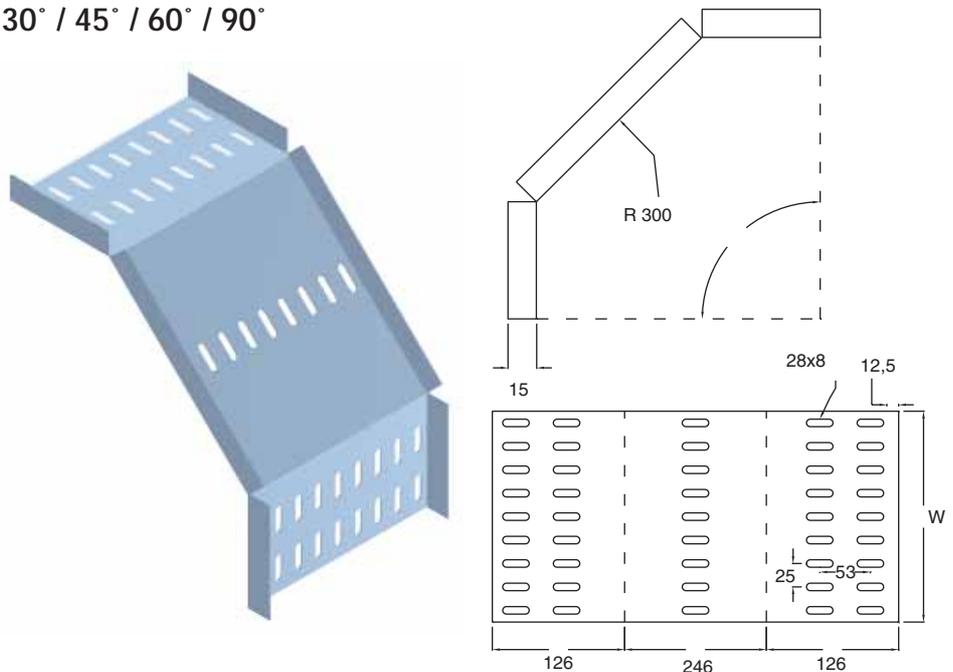
PART REF
LDT / IR / 50 / A / Finish
LDT / IR / 75 / A / Finish
LDT / IR / 100 / A / Finish
LDT / IR / 150 / A / Finish
LDT / IR / 225 / A / Finish
LDT / IR / 300 / A / Finish
LDT / IR / 450 / A / Finish
LDT / IR / 600 / A / Finish
LDT / IR / 750 / A / Finish
LDT / IR / 900 / A / Finish



- LDT cable tray accessories are connected by Fish Plates. For Fish Plate details refer page 16
- Bonding Jumpers are used for the Earthing Connectivity. For details refer page 84

## LDT - EXTERNAL RISER - 30° / 45° / 60° / 90°

PART REF
LDT / ER / 50 / A / Finish
LDT / ER / 75 / A / Finish
LDT / ER / 100 / A / Finish
LDT / ER / 150 / A / Finish
LDT / ER / 225 / A / Finish
LDT / ER / 300 / A / Finish
LDT / ER / 450 / A / Finish
LDT / ER / 600 / A / Finish
LDT / ER / 750 / A / Finish
LDT / ER / 900 / A / Finish

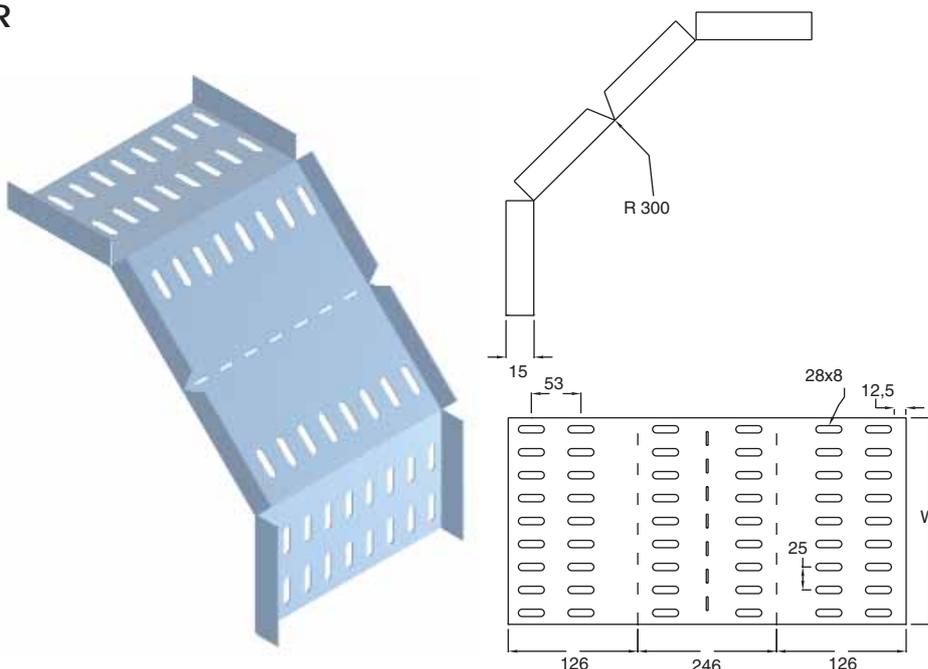


- PSI Tray accessories are produced in single blanks and carry no welding. This design gives the component extra strength, rigidity and ease of installation.
- For special gauges, sizes or design, consult our sales team or factory.

# LIGHT DUTY STRAIGHT FLANGE CABLE TRAYS

## LDT - ADJUSTABLE RISER

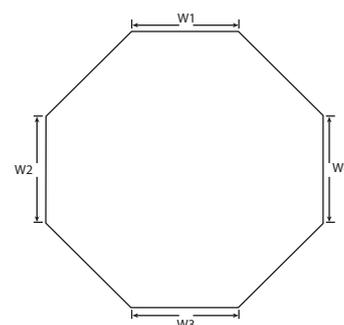
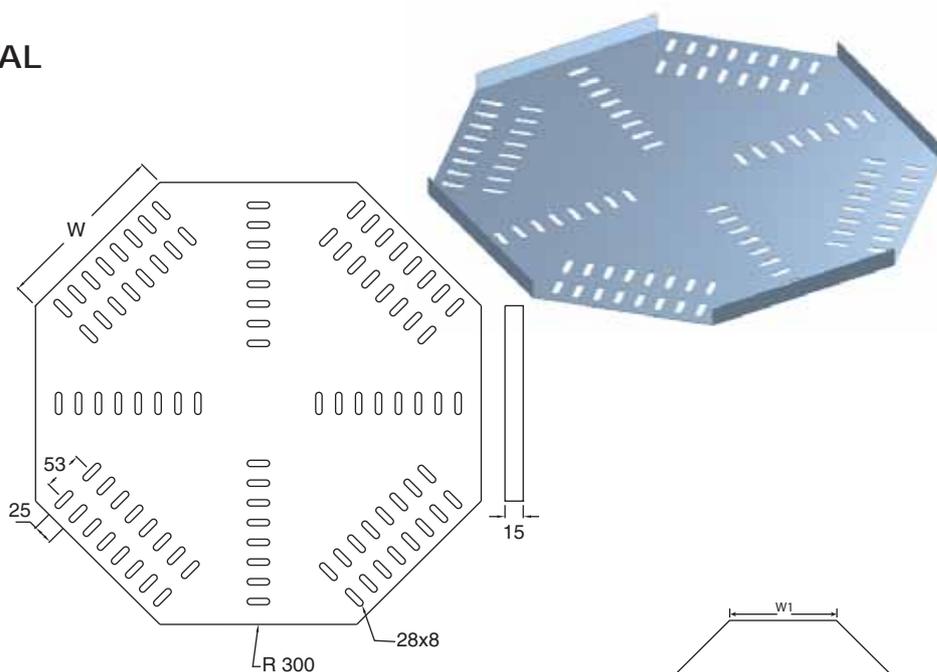
PART REF
LDT / AR / 50 / Finish
LDT / AR / 75 / Finish
LDT / AR / 100 / Finish
LDT / AR / 150 / Finish
LDT / AR / 225 / Finish
LDT / AR / 300 / Finish
LDT / AR / 450 / Finish
LDT / AR / 600 / Finish
LDT / AR / 750 / Finish
LDT / AR / 900 / Finish



Extra long risers can be produced on request and are specified by LDT / XLAR / Width / Finish. Contact the factory for details.

## LDT - CROSS HORIZONTAL

PART REF
LDT / CH / 50 / Finish
LDT / CH / 75 / Finish
LDT / CH / 100 / Finish
LDT / CH / 150 / Finish
LDT / CH / 225 / Finish
LDT / CH / 300 / Finish
LDT / CH / 450 / Finish
LDT / CH / 600 / Finish
LDT / CH / 750 / Finish
LDT / CH / 900 / Finish



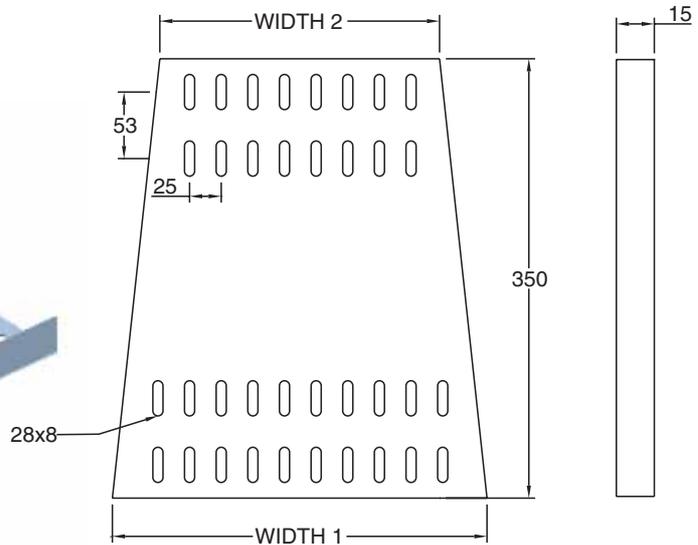
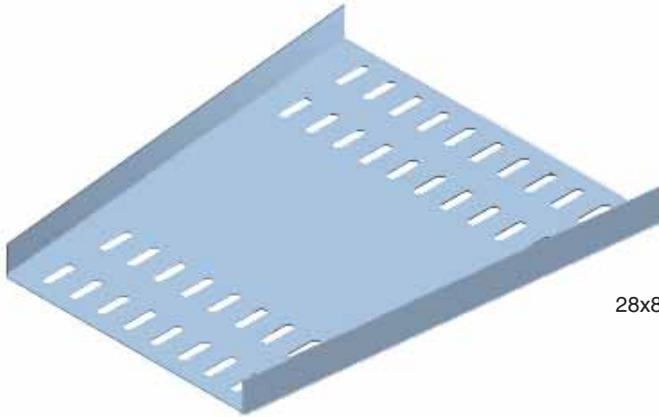
## LDT - UNEQUAL CROSS HORIZONTAL

PART REF
LDT / UCH / W1 / W2 / W3 / W4 / Finish

- For Unequal Cross specify the widths as W1,W2,W3,W4 in anti-clockwise direction as shown in the fig.
- Thickness for UCH to be followed of the larger size. For details refer page no. 10

## LDT - REDUCER STRAIGHT

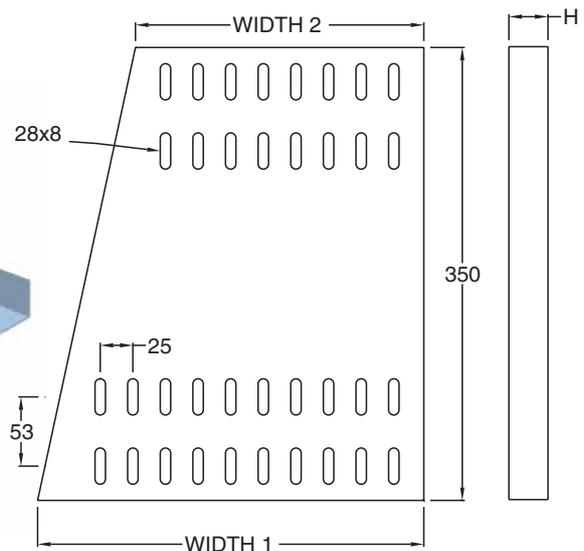
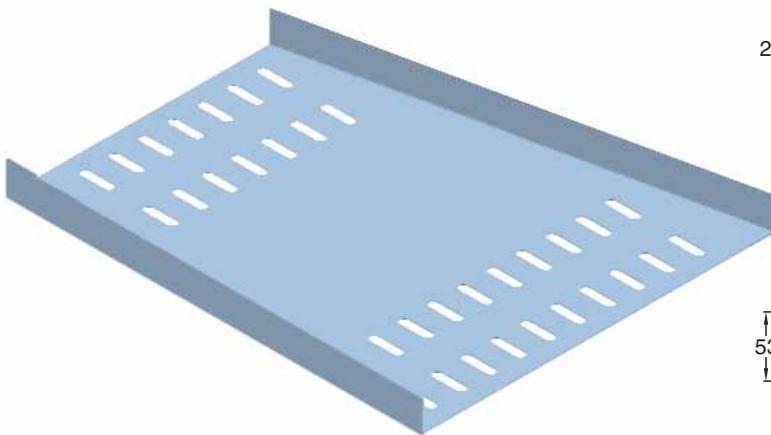
PART REF
LDT / RS / W1/ W2 / Finish



- Reducing Connectors can also be used for reduction depending on the site application. For Reducing Connector details refer page 83.
- PSI Tray accessories are produced in single blanks and carry no welding. This design gives the component extra strength, rigidity and ease of installation.

## LDT- REDUCER LEFT

PART REF
LDT / RL / W1 / W2 / Finish



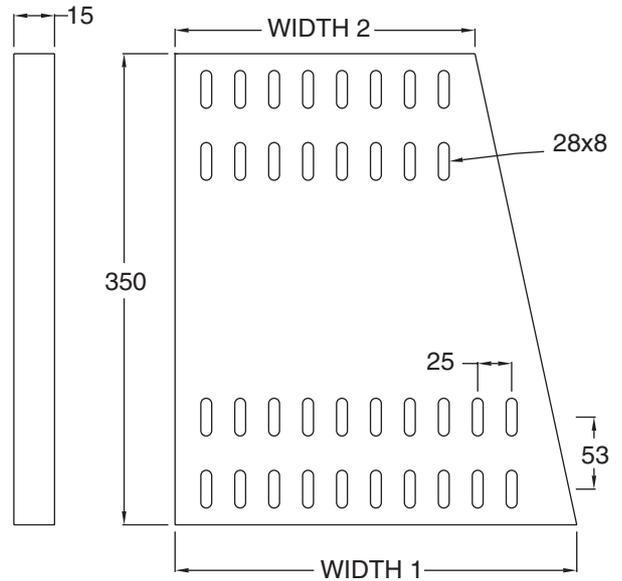
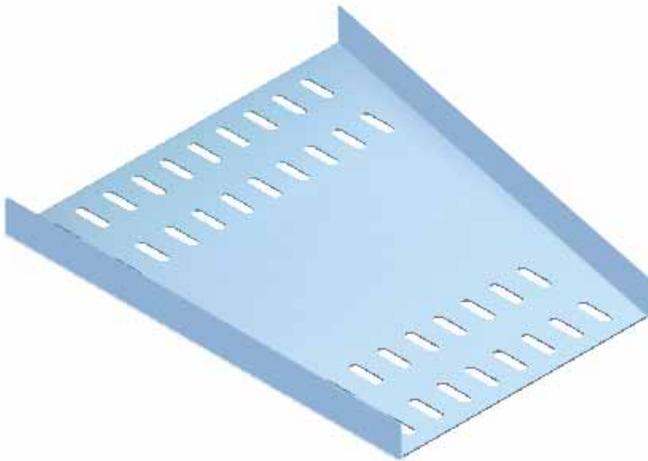
Reducer Left can be used where cable trays have the limitation of run on the right hand side

**Note:** Bonding Jumpers are used for the Earthing Connectivity. For details refer the page 84

# LIGHT DUTY STRAIGHT FLANGE CABLE TRAYS

## LDT - REDUCER RIGHT

PART REF.
LDT / RR / W1 / W2 / Finish



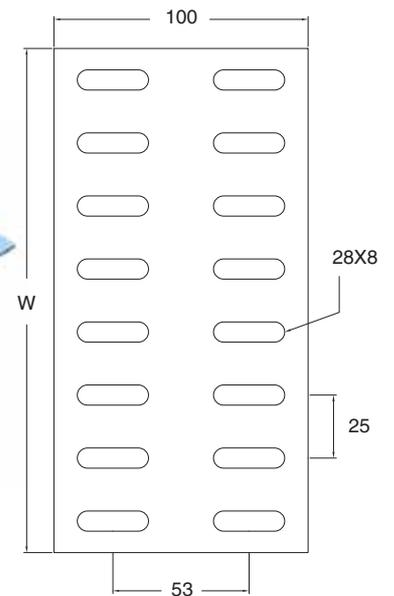
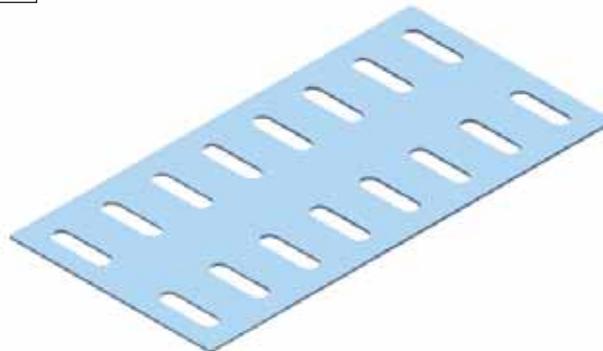
Reducer Right can be used where cable trays have the limitation of run on the left hand side

## LDT- FISH PLATE

PART REF.
LDT/ FP / W / Finish

### FISH PLATE

Width (mm)	Thickness (mm)
50 to 300	1.5
450 to 900	2.0

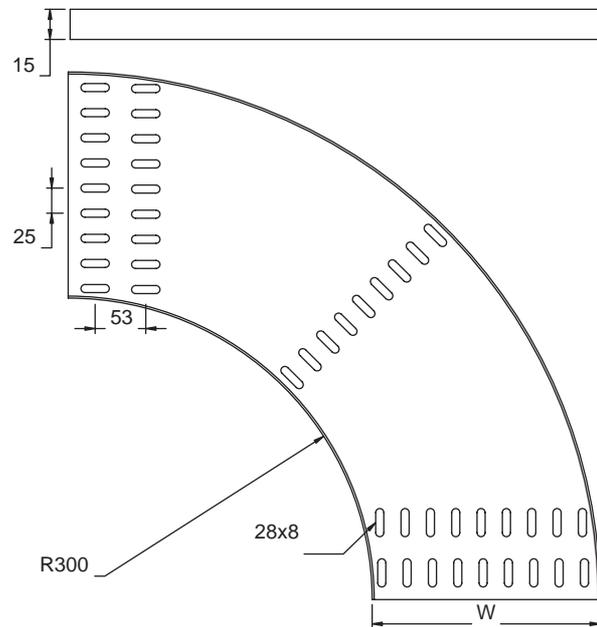
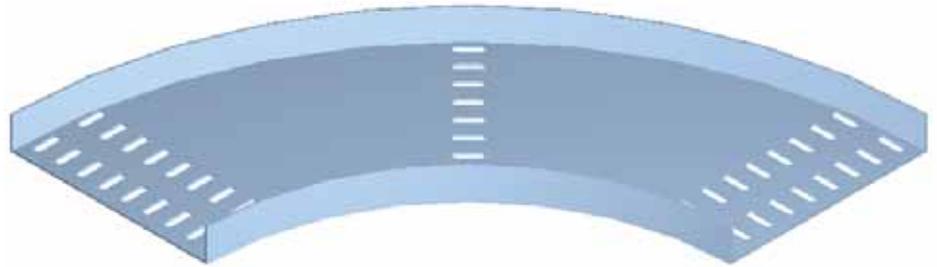


LDT cable tray & accessories are connected by Fish Plates.  
Fish Plate is supplied with one set of M6 x 12 roofing bolts, nuts, washers.

**Note:** Bonding Jumpers are used for the Earthing Connectivity. For details refer page 84

## LDT - ELBOW HORIZONTAL - 30° / 45° / 60° / 90°

PART REF
LDT/ EHR / 50 / A / Finish
LDT/ EHR / 75 / A / Finish
LDT/ EHR / 100 / A / Finish
LDT/ EHR / 150 / A / Finish
LDT/ EHR / 225 / A / Finish
LDT/ EHR / 300 / A / Finish
LDT/ EHR / 450 / A / Finish
LDT/ EHR / 600 / A / Finish
LDT/ EHR / 750 / A / Finish
LDT/ EHR / 900 / A / Finish

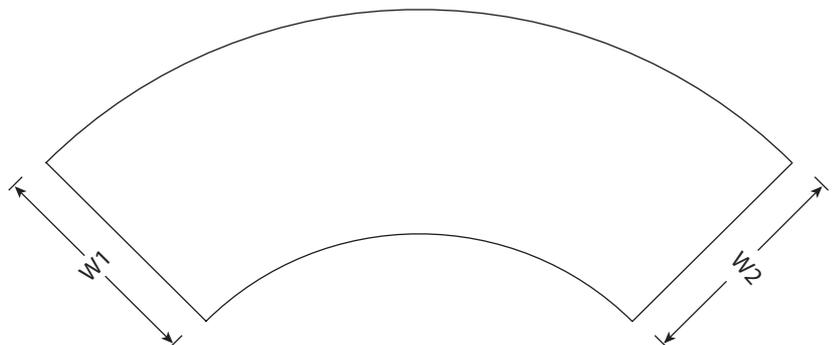


### CONNECTORS

LDT Cable trays and accessories are connected by fishplates. For fish plate details refer page 16 of the manual. For details on thickness, width, finish, refer page 10 of the manual.

## LDT - UNEQUAL ELBOW HORIZONTAL - 30° / 45° / 60° / 90°

PART REF
LDT / UEHR / W1/ W2 / A / Finish



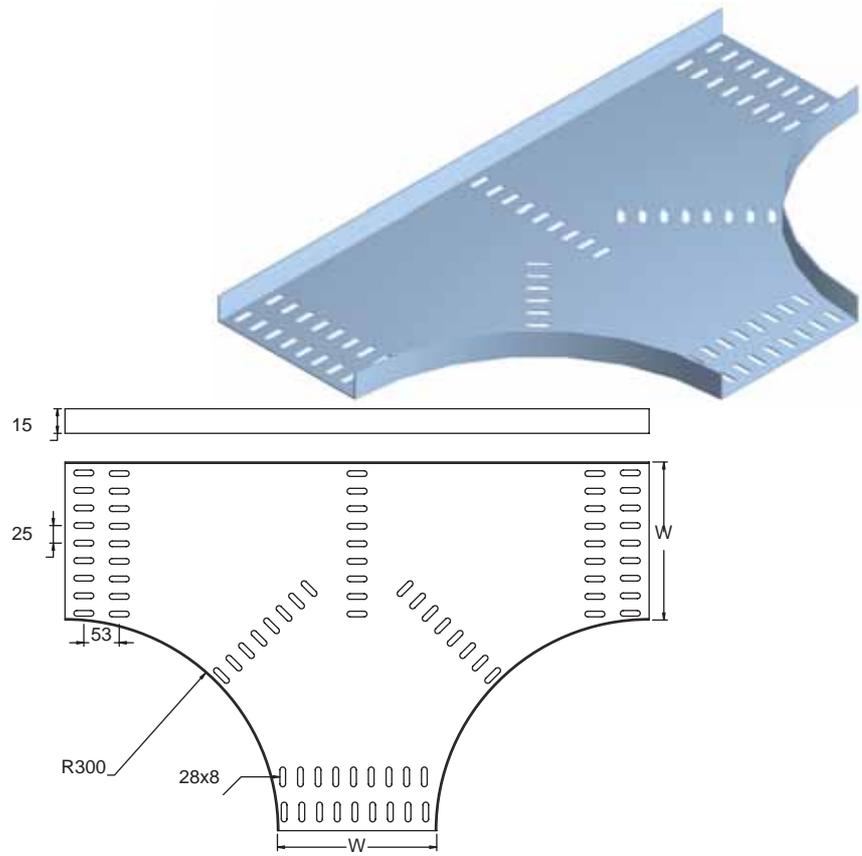
For Unequal Elbow specify the widths as W1 & W2 as shown in the fig.

# LIGHT DUTY STRAIGHT FLANGE CABLE TRAYS ROUND RADIAL ACCESSORIES



## LDT - TEE HORIZONTAL

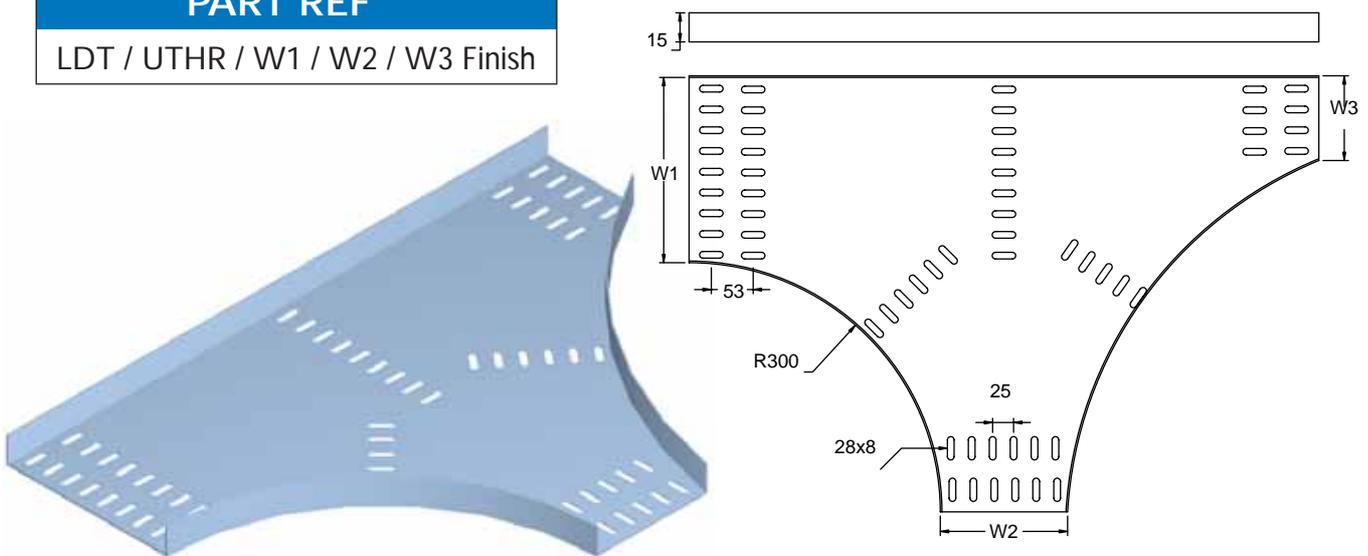
PART REF
LDT / THR / 50 / Finish
LDT / THR / 75 / Finish
LDT / THR / 100 / Finish
LDT / THR / 150 / Finish
LDT / THR / 225 / Finish
LDT / THR / 300 / Finish
LDT / THR / 450 / Finish
LDT / THR / 600 / Finish
LDT / THR / 750 / Finish
LDT / THR / 900 / Finish



- For support system for the installation, please refer Metal strut framing system of this manual
- Accessories can be joined by fish plates, for details refer page 16

## LDT - UN EQUAL TEE

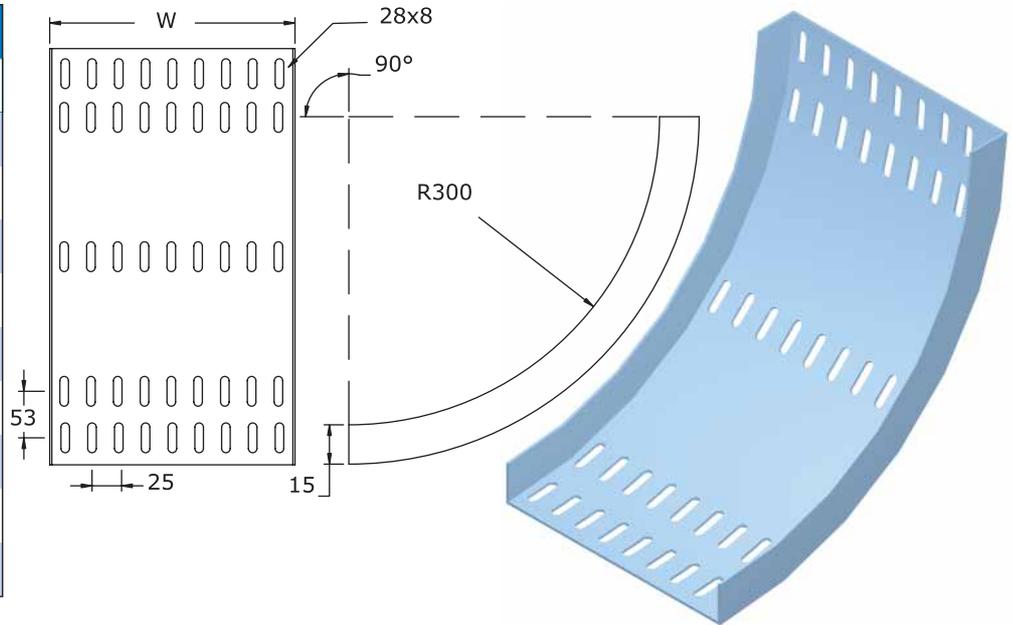
PART REF
LDT / UTHR / W1 / W2 / W3 Finish



- For Unequal Tee, please specify widths in anti- clockwise direction as W1, W2, W3
- Thickness for Unequal Tee to be followed of the larger size. For details refer page 10.
- Bonding jumpers can be used for earthing connectivity. For details refer page 84

## LDT - INTERNAL RISER - 30° / 45° / 60° / 90°

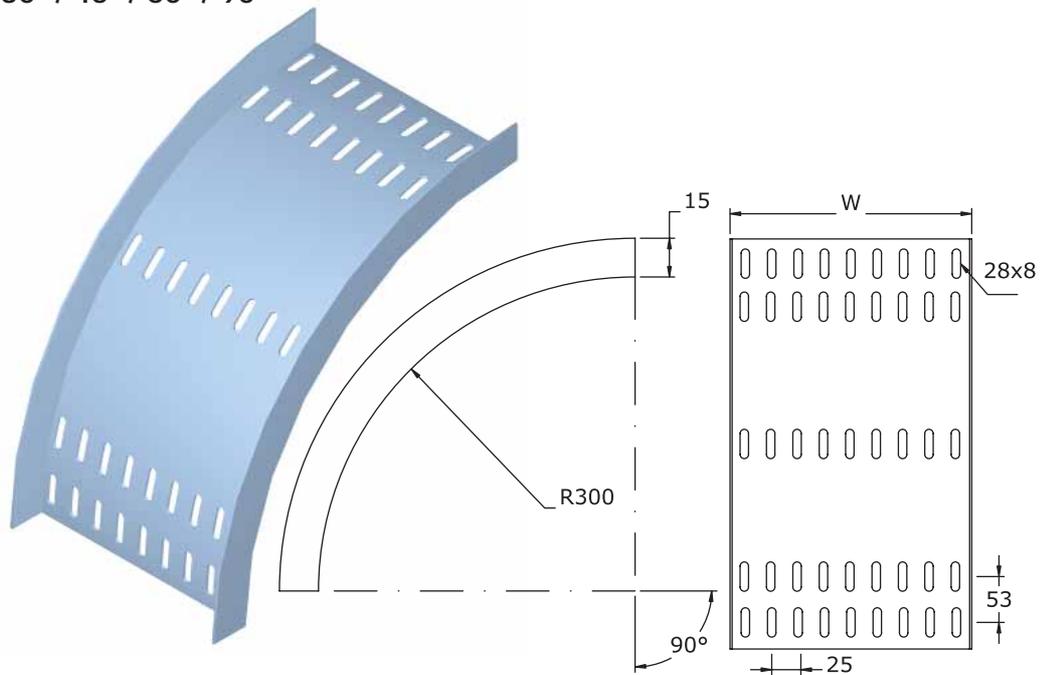
PART REF
LDT / IRR / 50 / A / Finish
LDT / IRR / 75 / A / Finish
LDT / IRR / 100 / A / Finish
LDT / IRR / 150 / A / Finish
LDT / IRR / 225 / A / Finish
LDT / IRR / 300 / A / Finish
LDT / IRR / 450 / A / Finish
LDT / IRR / 600 / A / Finish
LDT / IRR / 750 / A / Finish
LDT / IRR / 900 / A / Finish



- LDT cable tray accessories are connected by Fish Plates. For Fish Plate details refer page 16
- Bonding Jumpers are used for the Earthing Connectivity. For details refer page 84
- Adjustable riser can be produced on request and is specified by LDT / AR / Width / Finish. For details refer page 14

## LDT - EXTERNAL RISER - 30° / 45° / 60° / 90°

PART REF
LDT / ERR / 50 / A / Finish
LDT / ERR / 75 / A / Finish
LDT / ERR / 100 / A / Finish
LDT / ERR / 150 / A / Finish
LDT / ERR / 225 / A / Finish
LDT / ERR / 300 / A / Finish
LDT / ERR / 450 / A / Finish
LDT / ERR / 600 / A / Finish
LDT / ERR / 750 / A / Finish
LDT / ERR / 900 / A / Finish

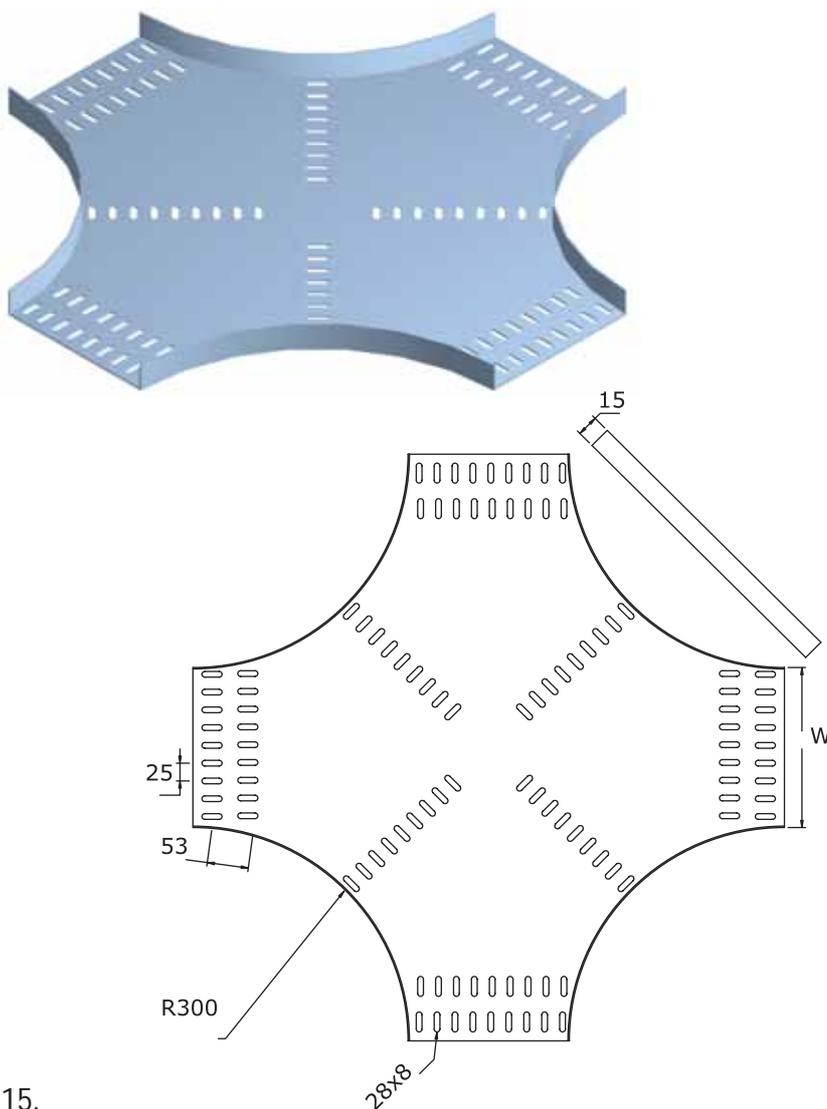


- Extra long risers can be produced on request and are specified by LDT / XLAR / Width / Finish. Contact the factory for details.
- For special gauges, finishes and design consult our sales team.

# LIGHT DUTY STRAIGHT FLANGE CABLE TRAYS ROUND RADIAL ACCESSORIES

## LDT - CROSS HORIZONTAL

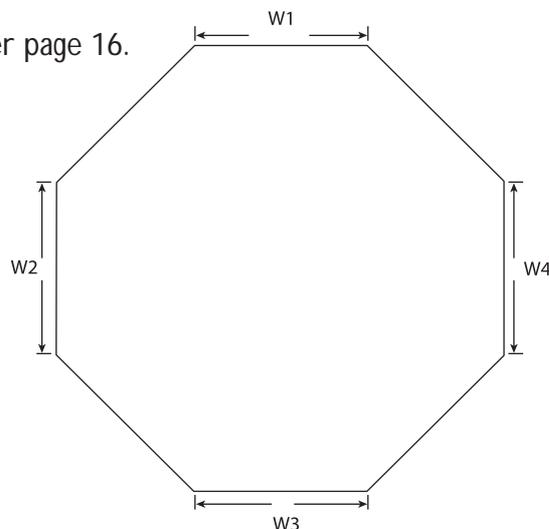
PART REF
LDT / CHR / 50 / Finish
LDT / CHR / 75 / Finish
LDT / CHR / 100 / Finish
LDT / CHR / 150 / Finish
LDT / CHR / 225 / Finish
LDT / CHR / 300 / Finish
LDT / CHR / 450 / Finish
LDT / CHR / 600 / Finish
LDT / CHR / 750 / Finish
LDT / CHR / 900 / Finish



- For LDT reducer details refer page 15.
- LDT Accessories are joined by fish plates. For details refer page 16.

## LDT - UNEQUAL CROSS HORIZONTAL

PART REF
LDT / UCHR / W1/ W2/ W3/ W4 / Finish



- For Unequal Cross specify the widths as W1,W2,W3,W4 in anti-clockwise direction as shown in the fig.
- Thickness for UCHR to be followed of the larger size. For details refer page no. 10



# LIGHT DUTY STRAIGHT FLANGE CABLE TRAYS

## WEIGHT OF THE COMPONENTS

LDT - CABLE TRAY

WIDTH(mm)	WT. (Kgs.)
50	1.802
75	2.321
100	2.851
150	3.911
225	6.583
300	8.480
450	15.730
600	20.447
750	23.623
900	39.951

LDT - ELBOW HORIZONTAL

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
50	0.085	0.170
75	0.127	0.254
100	0.170	0.329
150	0.265	0.509
225	0.509	1.007
300	0.753	1.505
450	1.760	3.519
600	2.873	5.554
750	5.385	10.770
900	7.367	14.723

LDT - EXTERNAL RISER

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
50	0.138	0.276
75	0.180	0.360
100	0.307	0.498
150	0.350	0.689
225	0.657	1.166
300	0.753	1.505
450	1.410	2.809
600	1.834	3.657
750	3.010	6.021
900	3.583	7.155

LDT - INTERNAL RISER

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
50	0.148	0.297
75	0.212	0.392
100	0.276	0.541
150	0.360	0.742
225	0.636	1.272
300	0.827	1.643
450	1.526	3.053
600	1.993	3.975
750	3.562	6.583
900	3.911	7.812

LDT - TEE HORIZONTAL

WIDTH(mm)	WT. (Kgs.)
50	0.424
75	0.594
100	0.816
150	1.113
225	1.961
300	2.703
450	5.724
600	8.575
750	17.214
900	21.126

LDT - CROSS HORIZONTAL

WIDTH(mm)	WT. (Kgs.)
50	0.636
75	0.795
100	1.198
150	1.558
225	2.586
300	3.434
450	6.901
600	9.996
750	19.907
900	23.829

# HEAVY DUTY STRAIGHT FLANGE CABLE TRAYS

## FOR STRAIGHT LENGTHS AND ACCESSORIES

Range / Width (W)	Thickness (T)	Side Height (H)
All dimensions are in mm		
50 to 150	1.0	35
225 to 300	1.2	35
450 to 600	1.5	35
750 to 900	2.0	35

## STANDARD FINISHES

HDG	Hot dip Galvanized to BS EN ISO 1461:1999 (Formerly BS 729)
PG	Pre-galvanized to BS EN 10142 & 10143
PC	Powder Coating to suit clients requirements
SS	Stainless steel finish to required grades

Heavy duty straight flange cable trays are produced in a standard length of 3 mtrs but can be produced in different lengths on request

Heavy duty straight flange cable tray accessories are produced to standard radius of 300 mm but can be produced in 450 mm, 600mm and 900 mm as required

Accessory covers and clamp details have been provided at the end of cable tray chapter.

## COVERS FOR STRAIGHT LENGTHS AND ACCESSORIES

Range / Width (W)	Thickness (T)	Side Height (H)
All dimensions are in mm		
50 to 300	1.0	11
450 to 600	1.2	11
750 to 900	1.5	11

## ORDER PATTERN

To select the required component, please specify the type, component, width, finish. Angles can be mentioned wherever necessary.

### EXAMPLE:

TYPE / COMPONENT / WIDTH / FINISH (without angle) PHDT / COM / WIDTH / HDG

TYPE / COMPONENT / WIDTH / ANGLE / FINISH (with angle) PHDT / COM / WIDTH / A / HDG

### Note

For special finishes consult our sales team, factory

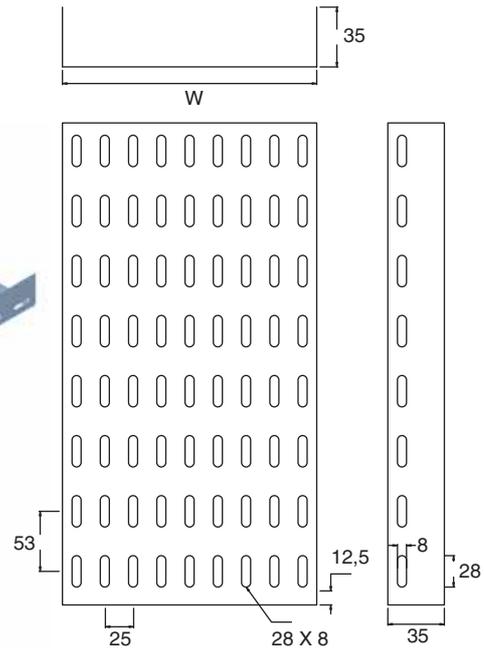
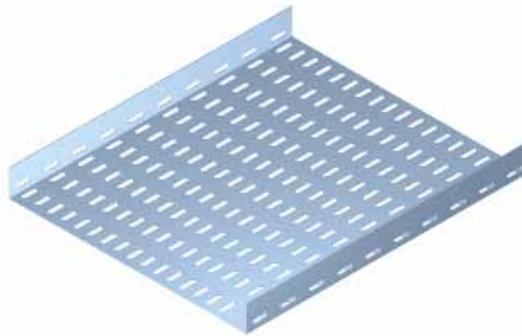
For special sizes, gauges, flanges, consult our sales team, factory



# HEAVY DUTY STRAIGHT FLANGE CABLE TRAYS

## HEAVY DUTY STRAIGHT FLANGE TRAY - (PHDT)

PART REF
PHDT / CT / 50 / Finish
PHDT / CT / 75 / Finish
PHDT / CT / 100 / Finish
PHDT / CT / 150 / Finish
PHDT / CT / 225 / Finish
PHDT / CT / 300 / Finish
PHDT / CT / 450 / Finish
PHDT / CT / 600 / Finish
PHDT / CT / 750 / Finish
PHDT / CT / 900 / Finish



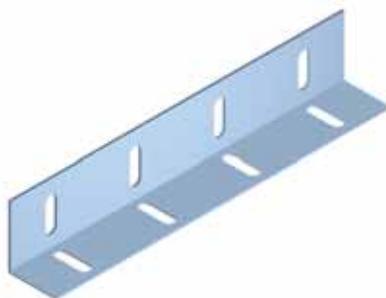
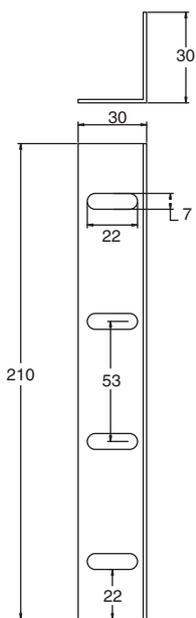
### CONNECTORS

PHDT CableTrays are joined together by straight & internal connectors. Connectors are supplied in pairs with a set of M6 x 12 roofing bolts, nuts and washers. Load graphs provided in the manual are based on PHDT / SC .To be ordered separately.

#### STRAIGHT CONNECTOR

##### PART REF

PHDT / SC / Width / Finish

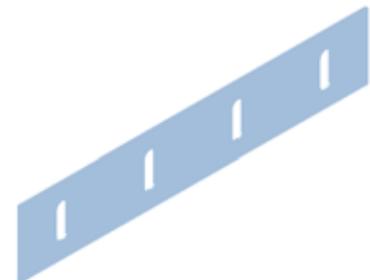
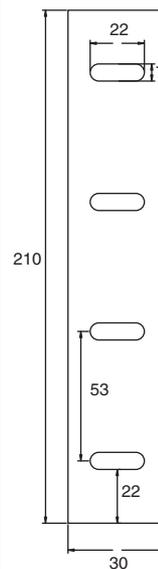


Width (mm)	Thickness (mm)
50 to 300	1.5
450 to 900	2.0

#### INTERNAL CONNECTOR

##### PART REF

PHDT / IC / Width / Finish



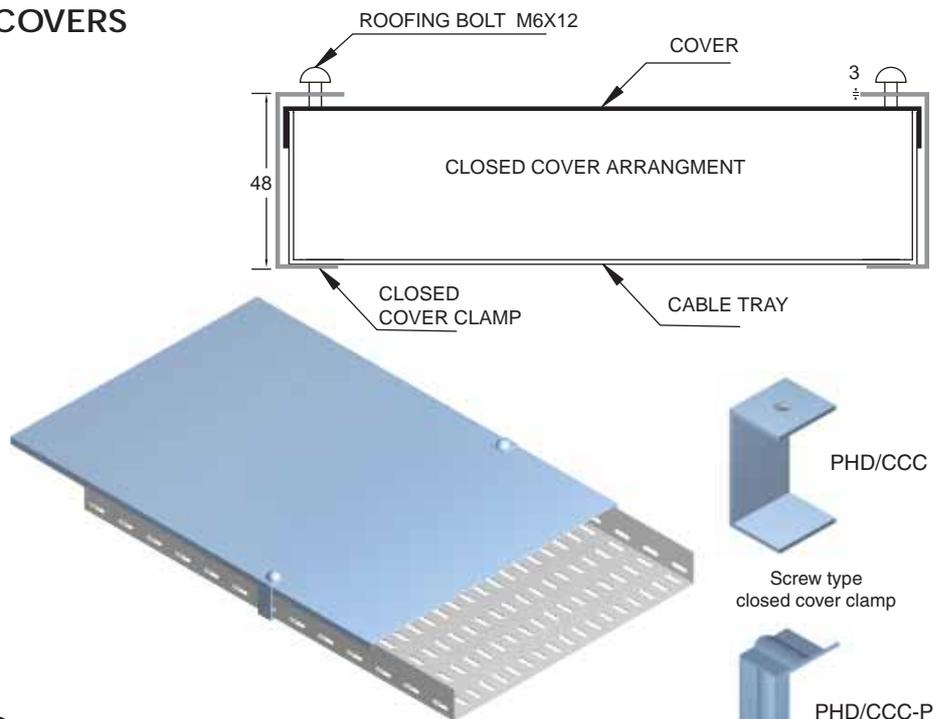
Width (mm)	Thickness (mm)
50 to 150	2.0

Internal Connectors are produced for the widths ranging from 50 to 150 mm only.

# HEAVY DUTY STRAIGHT FLANGE CABLE TRAYS

## CABLE TRAY CLOSED COVERS

PART REF
PHDT / CTCC / 50 / Finish
PHDT / CTCC / 75 / Finish
PHDT / CTCC / 100 / Finish
PHDT / CTCC / 150 / Finish
PHDT / CTCC / 225 / Finish
PHDT / CTCC / 300 / Finish
PHDT / CTCC / 450 / Finish
PHDT / CTCC / 600 / Finish
PHDT / CTCC / 750 / Finish
PHDT / CTCC / 900 / Finish

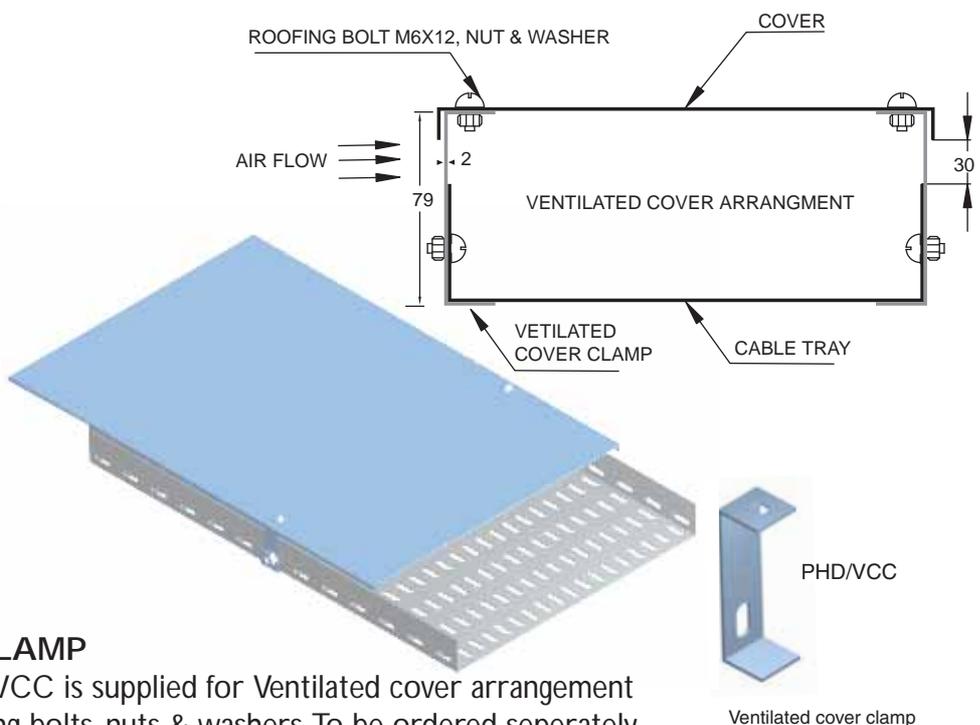


### CLOSED COVER CLAMP

Screw type closed cover clamp PHD/CCC is supplied for closed cover arrangement with M6 x 12 roofing bolt. PHD/CCC-P is a push type option & requires no bolts. To be ordered separately

## CABLE TRAY VENTILATED COVERS

PART REF
PHDT / CTVC / 50 / Finish
PHDT / CTVC / 75 / Finish
PHDT / CTVC / 100 / Finish
PHDT / CTVC / 150 / Finish
PHDT / CTVC / 225 / Finish
PHDT / CTVC / 300 / Finish
PHDT / CTVC / 450 / Finish
PHDT / CTVC / 600 / Finish
PHDT / CTVC / 750 / Finish
PHDT / CTVC / 900 / Finish



### VENTILATED COVER CLAMP

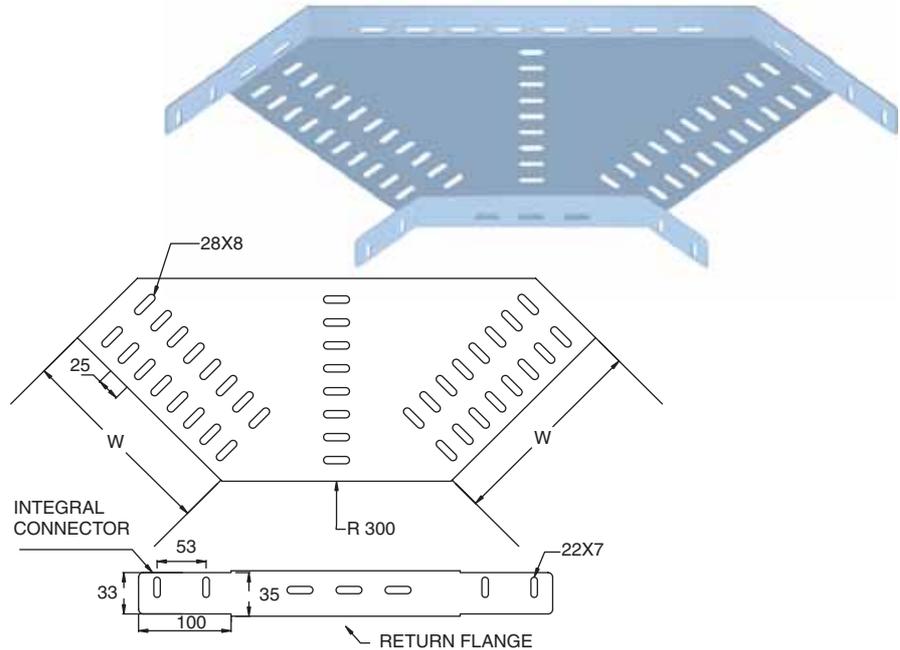
Ventilated cover clamp PHD/VCC is supplied for Ventilated cover arrangement with the set of M6 x 12 roofing bolts, nuts & washers To be ordered separately.

**Note:** Covers can be used as closed or ventilated by using an appropriate clamps. Necessary holes are provided on the covers for clamping.

Covers can be produced with louvers also on request

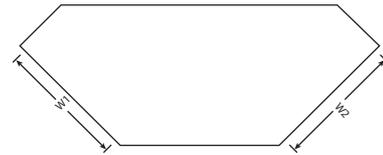
## PHDT - ELBOW HORIZONTAL 30° / 45° / 60° / 90°

PART REF
PHDT / EH / 50 / A / Finish
PHDT / EH / 75 / A / Finish
PHDT / EH / 100 / A / Finish
PHDT / EH / 150 / A / Finish
PHDT / EH / 225 / A / Finish
PHDT / EH / 300 / A / Finish
PHDT / EH / 450 / A / Finish
PHDT / EH / 600 / A / Finish
PHDT / EH / 750 / A / Finish
PHDT / EH / 900 / A / Finish



## PHDT UNEQUAL ELBOW - 30° / 45° / 60° / 90°

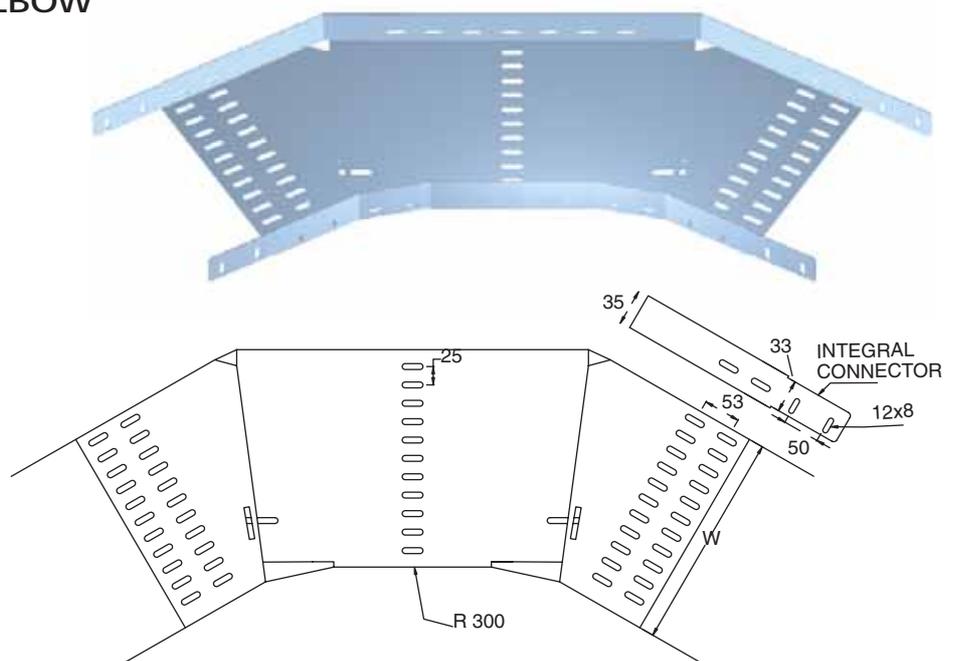
PART REF
PHDT / UEH / W1/ W2 / A / Finish



- For Unequal Elbow specify the widths as W1 & W2 as shown in the fig.
- Thickness for UEH to be followed of the larger size refer page 22

## PHDT - ADJUSTABLE ELBOW

PART REF
PHDT / AEH / 50 / Finish
PHDT / AEH / 75 / Finish
PHDT / AEH / 100 / Finish
PHDT / AEH / 150 / Finish
PHDT / AEH / 225 / Finish
PHDT / AEH / 300 / Finish
PHDT / AEH / 450 / Finish
PHDT / AEH / 600 / Finish
PHDT / AEH / 750 / Finish
PHDT / AEH / 900 / Finish

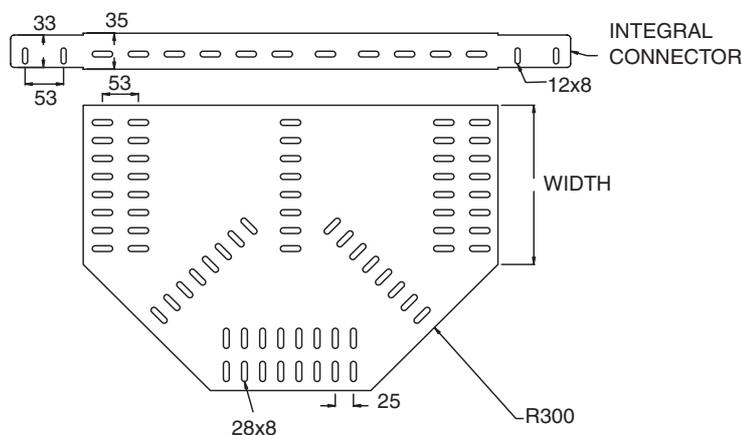
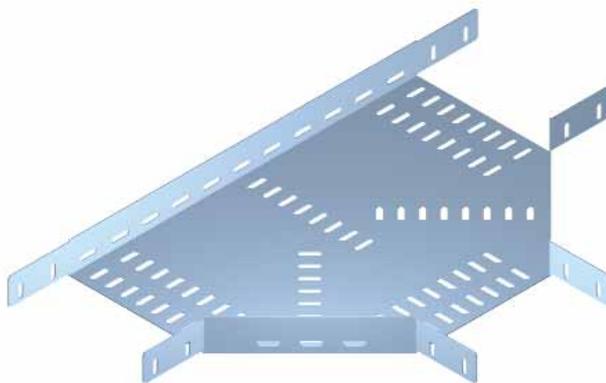


- Adjustable Elbow can be fixed to desired angles depending on the site conditions.

# HEAVY DUTY STRAIGHT FLANGE CABLE TRAYS

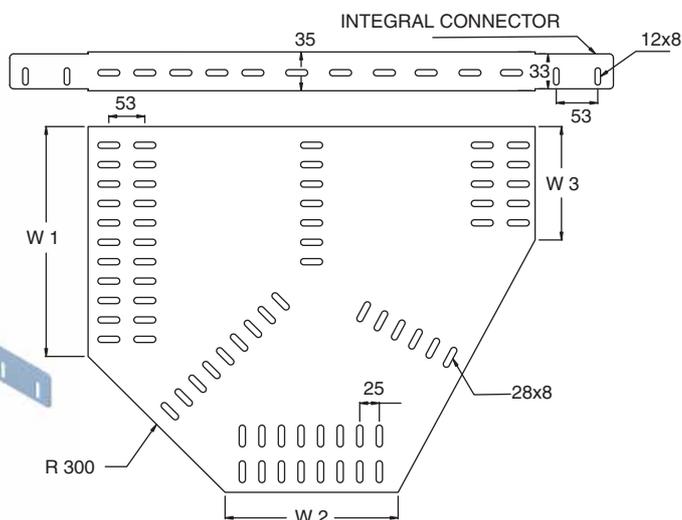
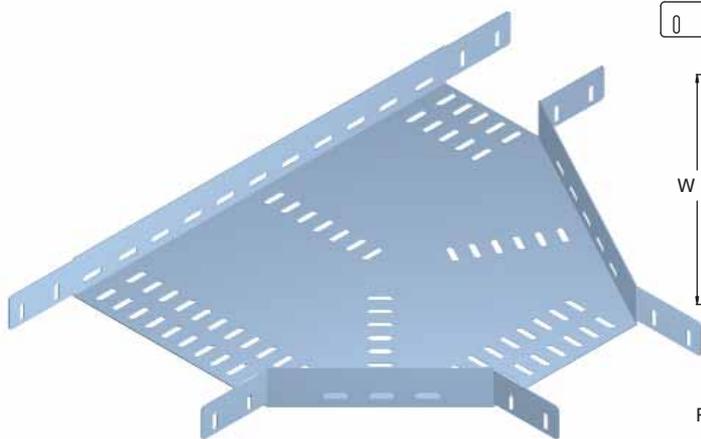
## PHDT - TEE HORIZONTAL

PART REF
PHDT / TH / 50 / Finish
PHDT / TH / 75 / Finish
PHDT / TH / 100 / Finish
PHDT / TH / 150 / Finish
PHDT / TH / 225 / Finish
PHDT / TH / 300 / Finish
PHDT / TH / 450 / Finish
PHDT / TH / 600 / Finish
PHDT / TH / 750 / Finish
PHDT / TH / 900 / Finish



## PHDT - UN EQUAL TEE

PART REF
PHDT / UTH / W1 / W2 / W3 / Finish



- For Unequal Tee specify widths W1, W2, W3 in anti clockwise direction.
- Thickness for Unequal Tee to be followed of the larger size refer page 22

### Note:

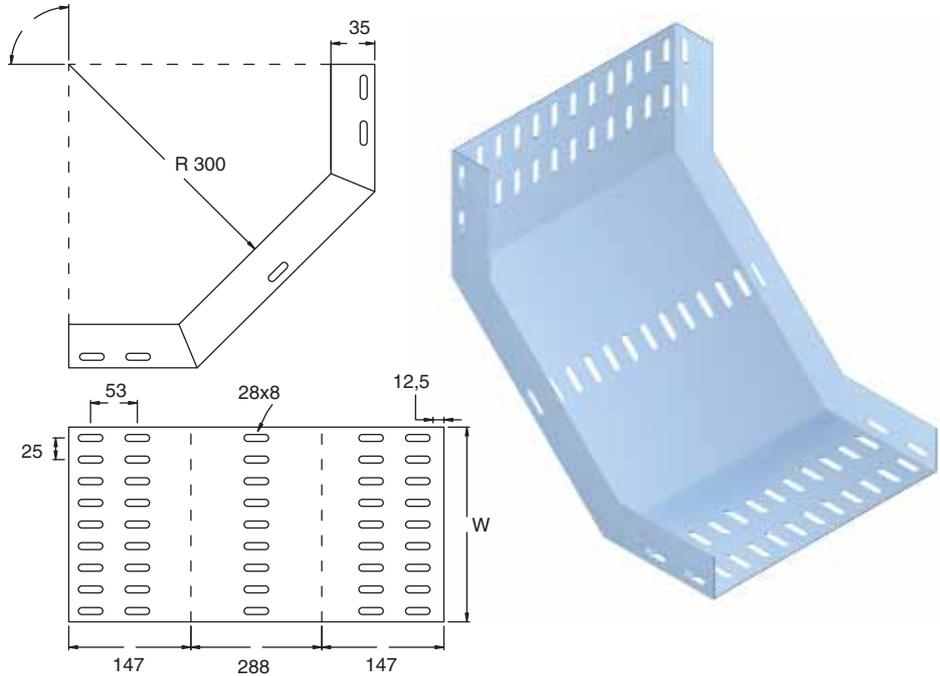
PSI - Tray accessories are produced in a single piece and carry no welding. This design gives the component extra strength, rigidity and ease of installation.

Bonding Jumpers are used for the Earthing Connectivity. For details refer page 84

For Accessory Cover details refer page 78

## PHDT - INTERNAL RISER - 30° / 45° / 60° / 90°

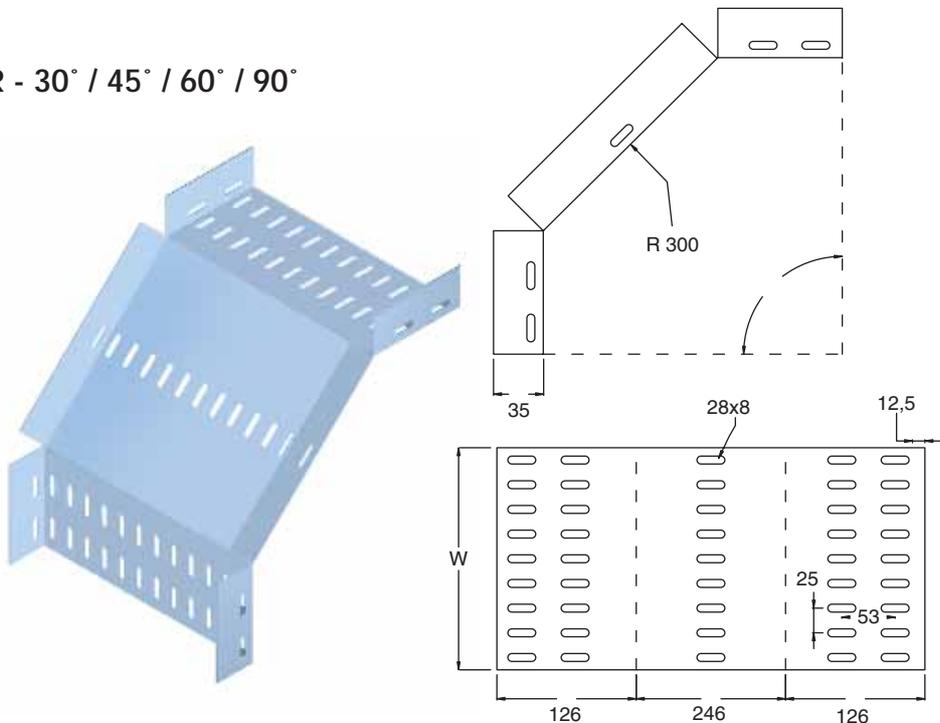
PART REF
PHDT / IR / 50 / A / Finish
PHDT / IR / 75 / A / Finish
PHDT / IR / 100 / A / Finish
PHDT / IR / 150 / A / Finish
PHDT / IR / 225 / A / Finish
PHDT / IR / 300 / A / Finish
PHDT / IR / 450 / A / Finish
PHDT / IR / 600 / A / Finish
PHDT / IR / 750 / A / Finish
PHDT / IR / 900 / A / Finish



Risers are joined to PHD Trays by straight connectors. For details refer page 23.

## PHDT - EXTERNAL RISER - 30° / 45° / 60° / 90°

PART REF
PHDT / ER / 50 / A / Finish
PHDT / ER / 75 / A / Finish
PHDT / ER / 100 / A / Finish
PHDT / ER / 150 / A / Finish
PHDT / ER / 225 / A / Finish
PHDT / ER / 300 / A / Finish
PHDT / ER / 450 / A / Finish
PHDT / ER / 600 / A / Finish
PHDT / ER / 750 / A / Finish
PHDT / ER / 900 / A / Finish



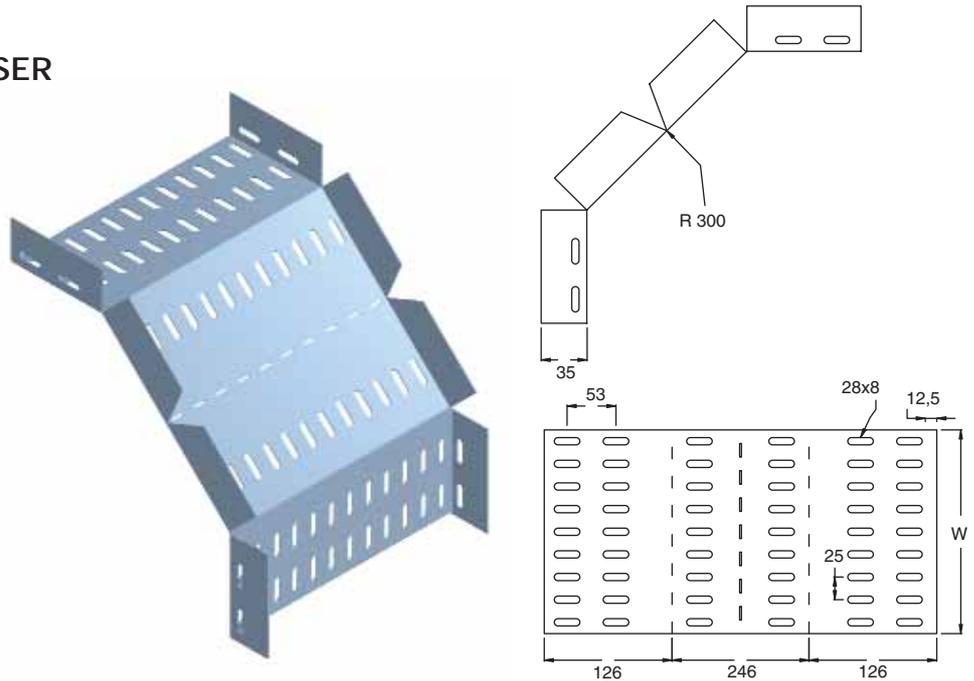
**Note:**

- Fish Plates are recommended for the trays & accessories above 200mm widths for better load bearing capacity refer page 84
- Bonding Jumpers are used for the Earthing Connectivity. For details refer page 84
- For Accessory Cover details refer page 78
- For special gauges, sizes or design, consult our sales team or factory.

# HEAVY DUTY STRAIGHT FLANGE CABLE TRAYS

## PHDT - ADJUSTABLE RISER

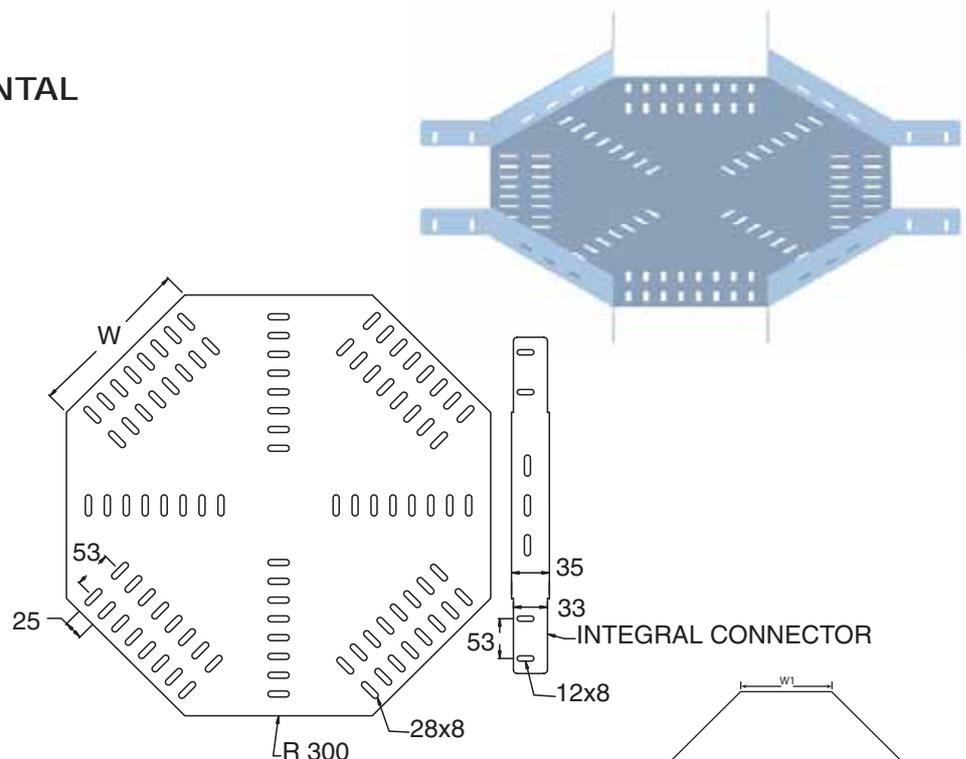
PART REF
PHDT / AR / 50 / Finish
PHDT / AR / 75 / Finish
PHDT / AR / 100 / Finish
PHDT / AR / 150 / Finish
PHDT / AR / 225 / Finish
PHDT / AR / 300 / Finish
PHDT / AR / 450 / Finish
PHDT / AR / 600 / Finish
PHDT / AR / 750 / Finish
PHDT / AR / 900 / Finish



Extra long Adjustable Riser can be produced on request and is specified by PHDT / XLAR / Width / Finish  
Contact factory for details.

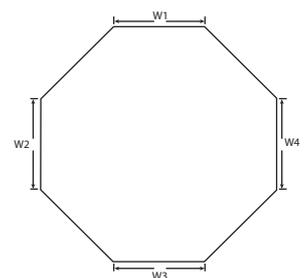
## PHDT - CROSS HORIZONTAL

PART REF
PHDT / CH / 50 / Finish
PHDT / CH / 75 / Finish
PHDT / CH / 100 / Finish
PHDT / CH / 150 / Finish
PHDT / CH / 225 / Finish
PHDT / CH / 300 / Finish
PHDT / CH / 450 / Finish
PHDT / CH / 600 / Finish
PHDT / CH / 750 / Finish
PHDT / CH / 900 / Finish



## LDT - UNEQUAL CROSS HORIZONTAL

PART REF
LDT/UCH / W1/W2 /W3/W4 / Finish



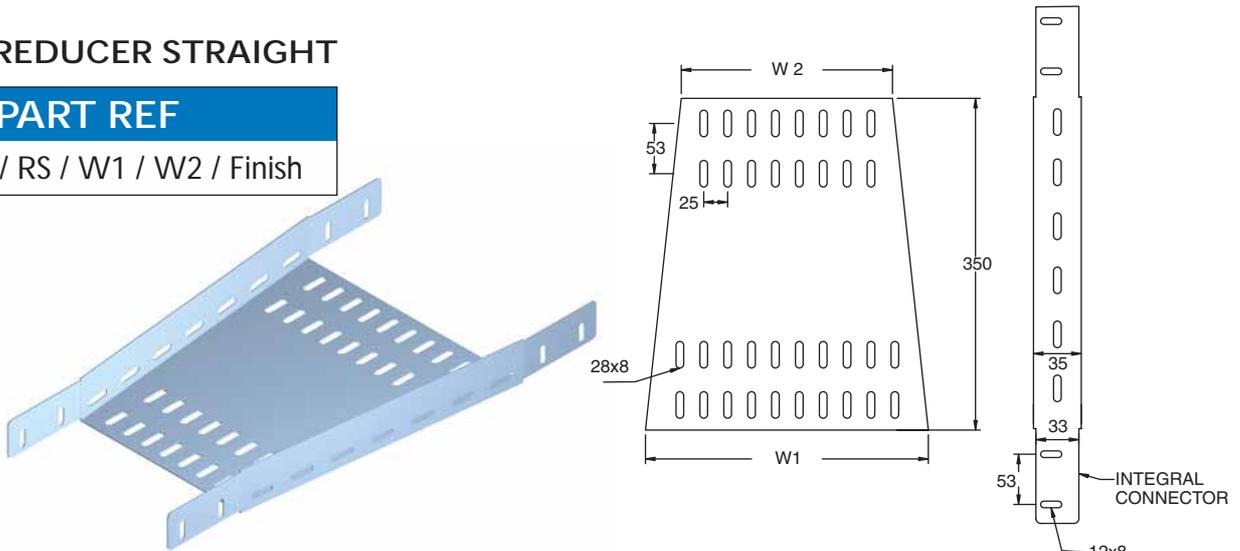
- For Unequal Cross specify the widths as W1,W2,W3,W4 in anti-clockwise direction as shown in the fig.
- Thickness for Unequal Cross to be followed of the larger size. For details refer page 22.



# HEAVY DUTY STRAIGHT FLANGE CABLE TRAYS

## PHDT - REDUCER STRAIGHT

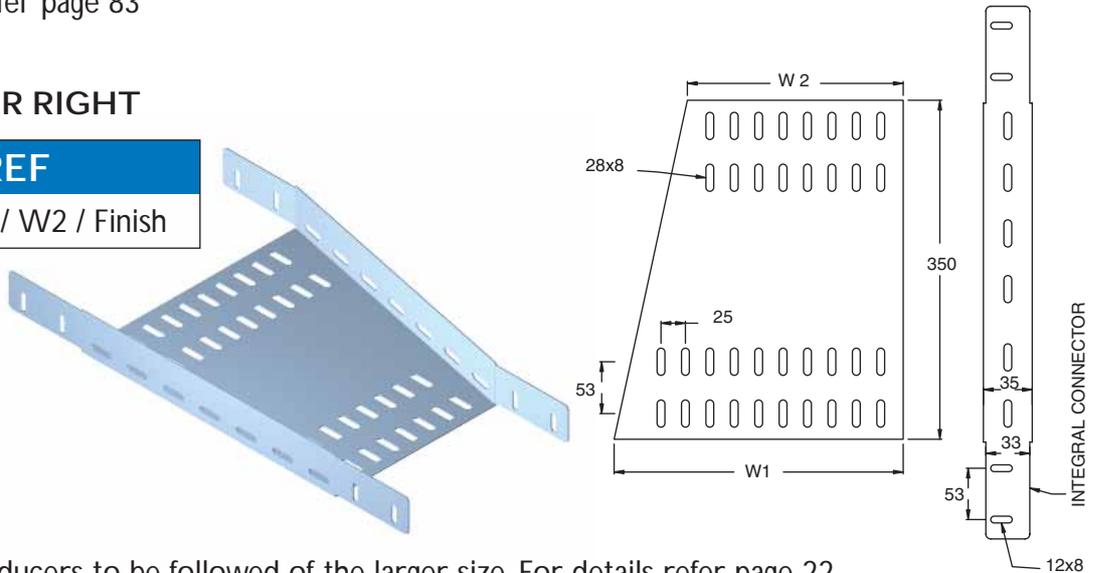
PART REF
PHDT / RS / W1 / W2 / Finish



Reducing Connectors can also be used for reduction, depending on the site application. For Reducing Connector details refer page 83

## PHDT - REDUCER RIGHT

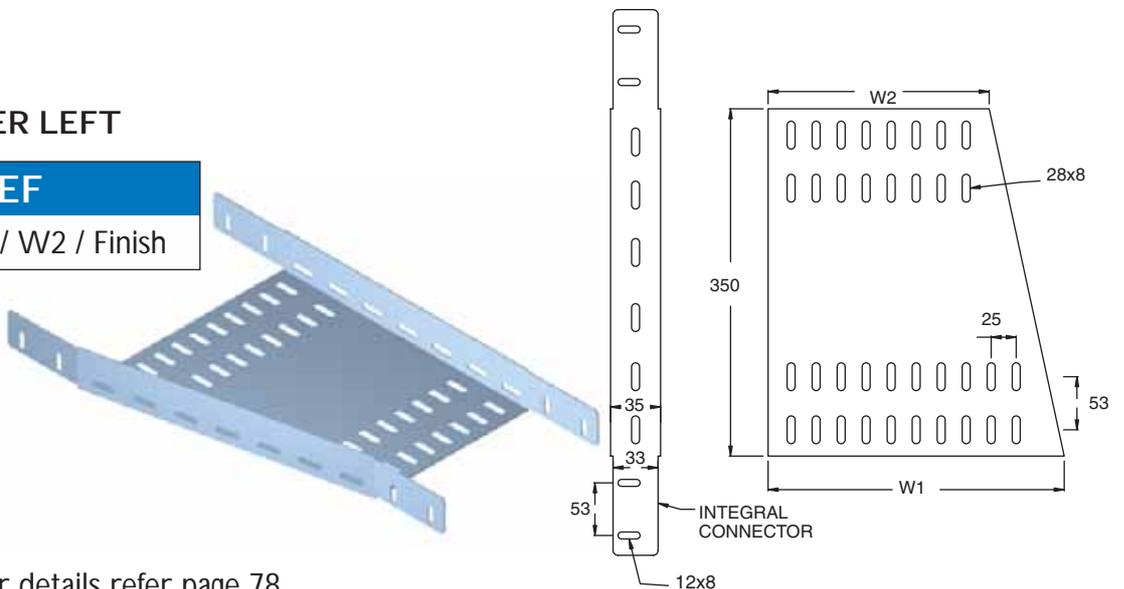
PART REF
PHDT / RR / W1 / W2 / Finish



Thickness for the Reducers to be followed of the larger size. For details refer page 22

## PHDT - REDUCER LEFT

PART REF
PHDT / RL / W1 / W2 / Finish

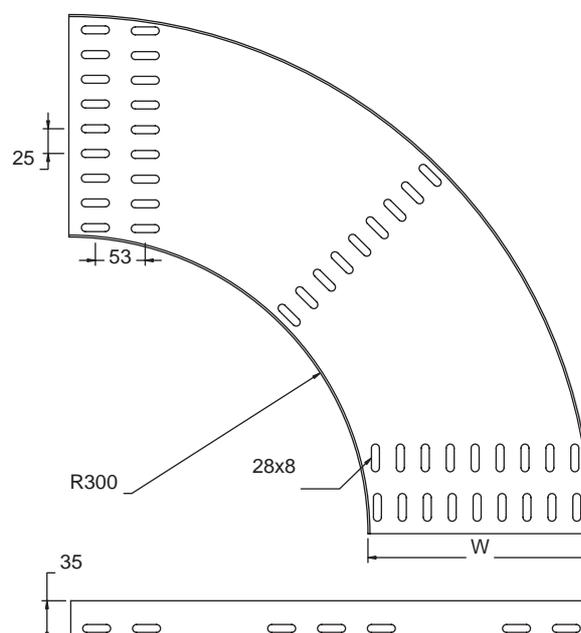
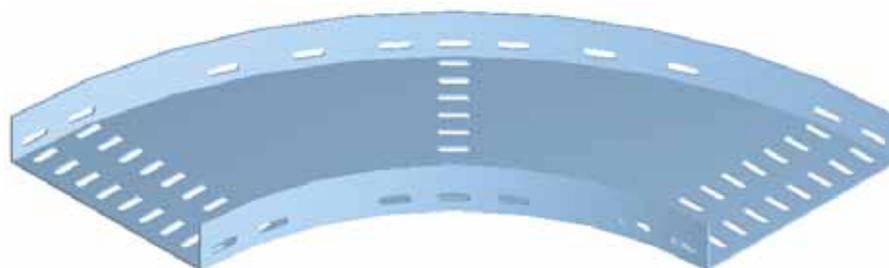


For Accessory Cover details refer page 78.

# HEAVY DUTY STRAIGHT FLANGE CABLE TRAYS ROUND RADIAL ACCESSORIES

## PHDT - ELBOW HORIZONTAL 30° / 45° / 60° / 90°

PART REF
PHDT / EHR / 50 / A / Finish
PHDT / EHR / 75 / A / Finish
PHDT / EHR / 100 / A / Finish
PHDT / EHR / 150 / A / Finish
PHDT / EHR / 225 / A / Finish
PHDT / EHR / 300 / A / Finish
PHDT / EHR / 450 / A / Finish
PHDT / EHR / 600 / A / Finish
PHDT / EHR / 750 / A / Finish
PHDT / EHR / 900 / A / Finish

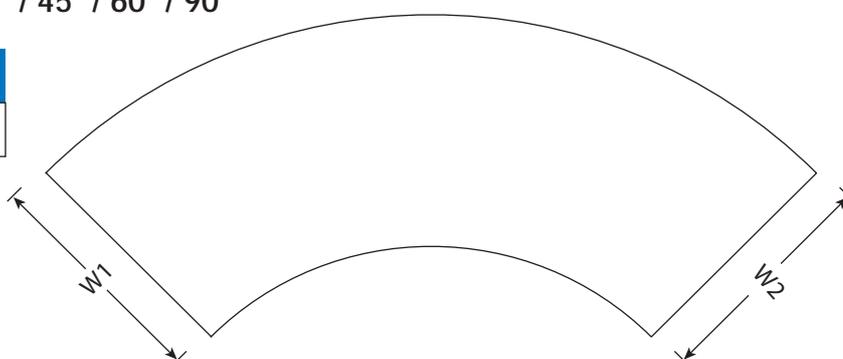


- For details of thickness, width and finishes refer page 22

- Adjustable elbows are also produced and are referred by PHDT / AEH / Width / Finish, refer page 25
- Round radial accessories cover can be produced on request. For details refer page 81

## PHDT UNEQUAL ELBOW - 30° / 45° / 60° / 90°

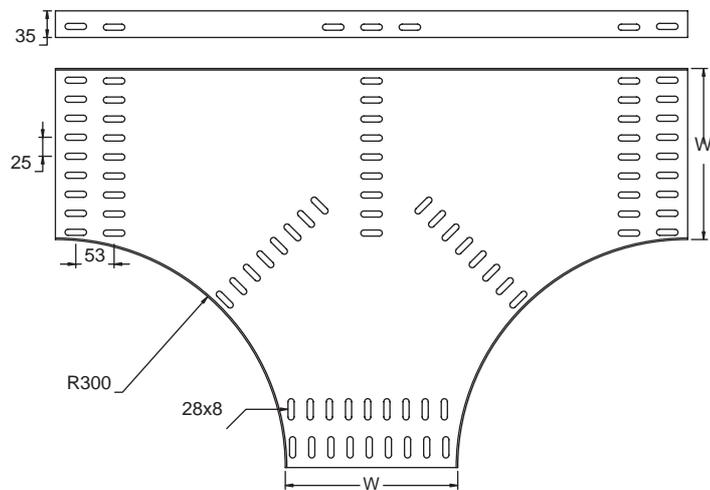
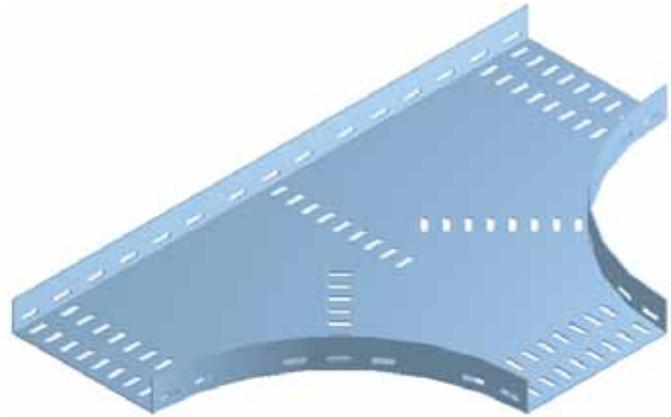
PART REF
PHDT / UEHR / W1/ W2 / A / Finish



- For Unequal Elbow specify the widths as W1 & W2 as shown in the fig.
- Thickness for UEHR to be followed of the larger size refer page 22
- PHDT Round radial accessories can be joined by connectors. For details refer page 23

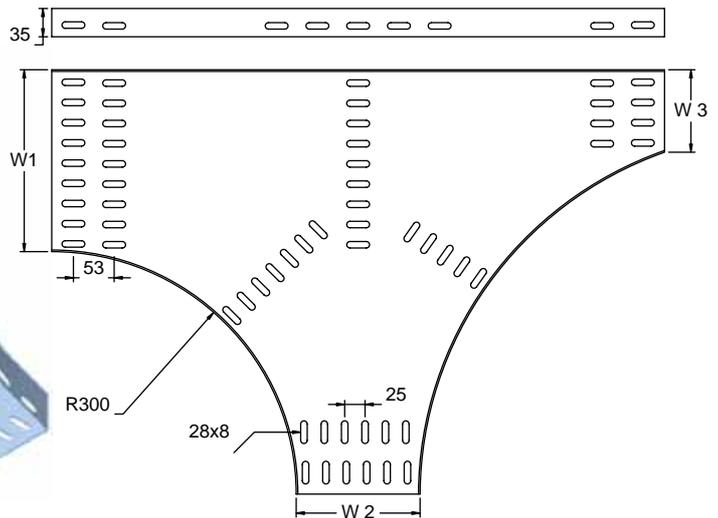
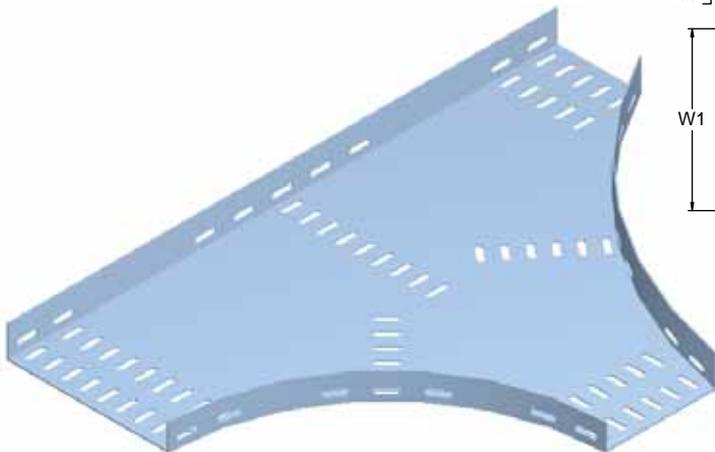
## PHDT - TEE HORIZONTAL

PART REF
PHDT / THR / 50 / Finish
PHDT / THR / 75 / Finish
PHDT / THR / 100 / Finish
PHDT / THR / 150 / Finish
PHDT / THR / 225 / Finish
PHDT / THR / 300 / Finish
PHDT / THR / 450 / Finish
PHDT / THR / 600 / Finish
PHDT / THR / 750 / Finish
PHDT / THR / 900 / Finish



## PHDT - UN EQUAL TEE

PART REF
PHDT / UTHR / W1 / W2 / W3 / Finish



- For Unequal Tee specify widths W1, W2, W3 in anti clockwise direction.
- Thickness for Unequal Tee to be followed of the larger size refer page 22

### Note:

PSI - Round Radial Accessories can be joined by connectors. For details refer page 23

Bonding Jumpers are used for the Earthing Connectivity. For details refer page 84

Round Radial Accessory Cover can be produced on request. For details refer new page 81

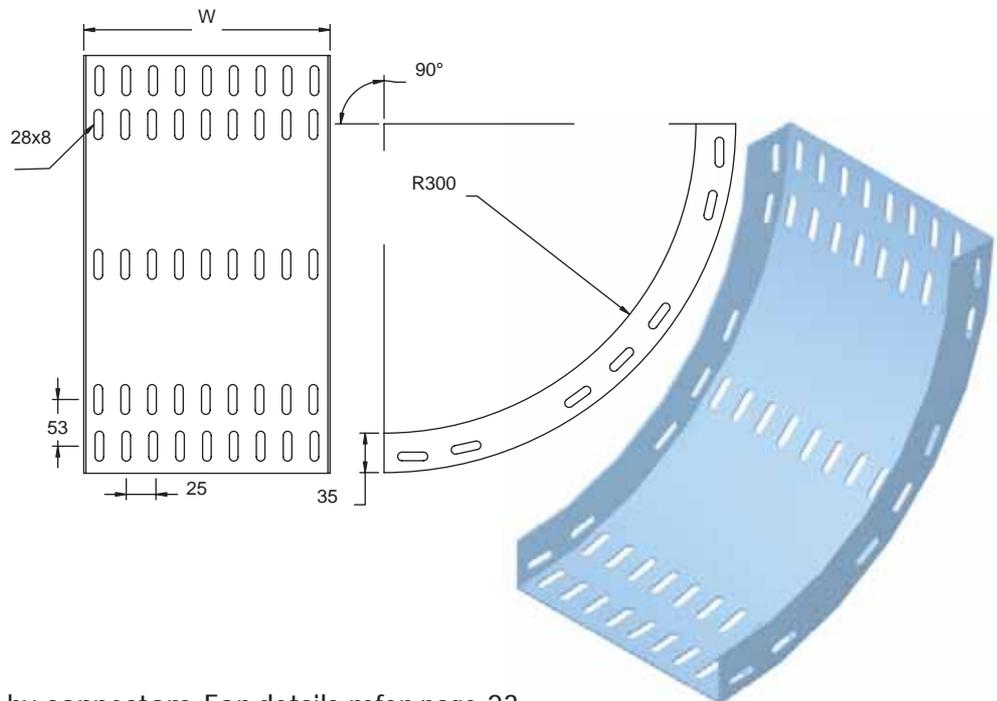
# HEAVY DUTY STRAIGHT FLANGE CABLE TRAYS

## ROUND RADIAL ACCESSORIES



### PHDT - INTERNAL RISER - 30° / 45° / 60° / 90°

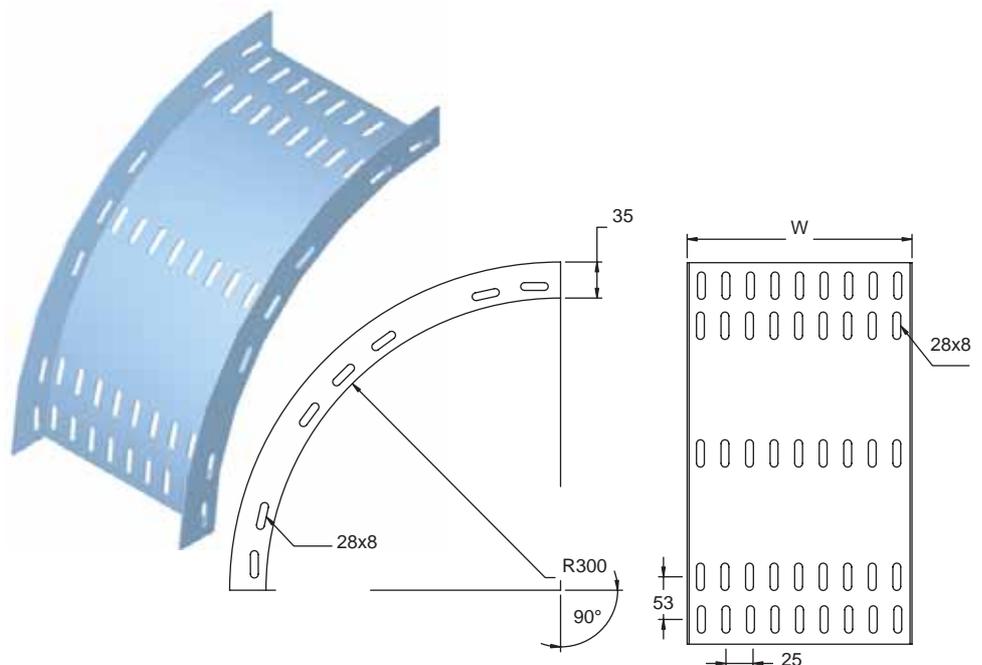
PART REF
PHDT / IRR / 50 / A / Finish
PHDT / IRR / 75 / A / Finish
PHDT / IRR / 100 / A / Finish
PHDT / IRR / 150 / A / Finish
PHDT / IRR / 225 / A / Finish
PHDT / IRR / 300 / A / Finish
PHDT / IRR / 450 / A / Finish
PHDT / IRR / 600 / A / Finish
PHDT / IRR / 750 / A / Finish
PHDT / IRR / 900 / A / Finish



- Risers are joined to PHD Trays by connectors. For details refer page 23.
- Adjustable risers are produced on request and is specified by PHDT / AR / Width / Finish. For details refer page 28.
- Extra long adjustable risers can be produced on request and is specified by PHDT / XLAR / Width / Finish

### PHDT - EXTERNAL RISER - 30° / 45° / 60° / 90°

PART REF
PHDT / ERR / 50 / A / Finish
PHDT / ERR / 75 / A / Finish
PHDT / ERR / 100 / A / Finish
PHDT / ERR / 150 / A / Finish
PHDT / ERR / 225 / A / Finish
PHDT / ERR / 300 / A / Finish
PHDT / ERR / 450 / A / Finish
PHDT / ERR / 600 / A / Finish
PHDT / ERR / 750 / A / Finish
PHDT / ERR / 900 / A / Finish

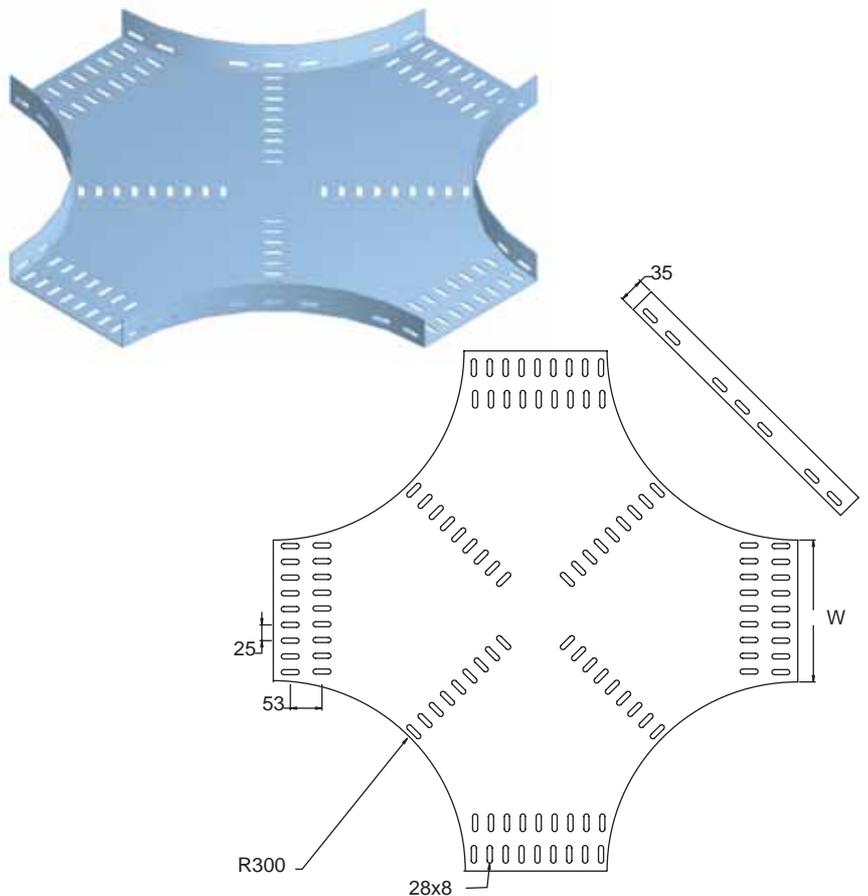


**Note:**

- Fish Plates are recommended for the trays & accessories above 200 mm widths for better load bearing capacity refer page 84.
- Bonding Jumpers are used for the Earthing Connectivity. For details refer page 84.
- Round Radial Accessory Covers are produced on request. For details refer page 81.
- For special gauges, sizes or design, consult our sales team or factory.

## PHDT - CROSS HORIZONTAL

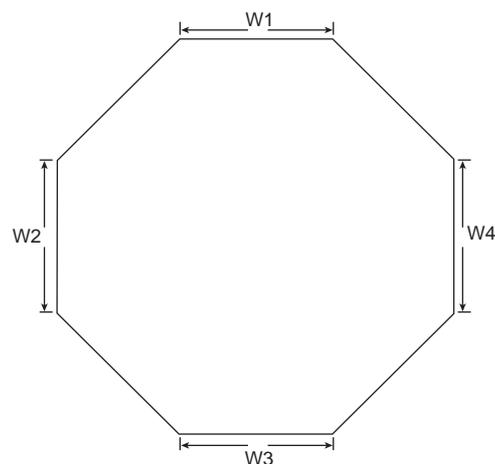
PART REF
PHDT / CHR / 50 / Finish
PHDT / CHR / 75 / Finish
PHDT / CHR / 100 / Finish
PHDT / CHR / 150 / Finish
PHDT / CHR / 225 / Finish
PHDT / CHR / 300 / Finish
PHDT / CHR / 450 / Finish
PHDT / CHR / 600 / Finish
PHDT / CHR / 750 / Finish
PHDT / CHR / 900 / Finish



- Accessories are connected to trays by connectors, For details refer page 23
- PHDT Round Radial Accessory covers are produced on request. For details refer page 81

## LDT - UNEQUAL CROSS HORIZONTAL

PART REF
LDT/UCHR / W1/W2 /W3/W4 / Finish



- For Unequal Cross specify the widths as W1,W2,W3,W4 in anti-clockwise direction as shown in the fig.
- Thickness for Unequal Cross to be followed of the larger size. For details refer page 22.
- For PHDT reducer details, refer page 29

# HEAVY DUTY STRAIGHT FLANGE CABLE TRAYS

## WEIGHT OF THE COMPONENTS

### PHDT - CABLE TRAY

WIDTH(mm)	WT. (Kgs.)
50	2.608
75	2.894
100	3.657
150	4.717
225	7.558
300	9.455
450	16.557
600	21.274
750	34.683
900	41.054

### INTERNAL CONNECTOR

WIDTH(mm)	WT. (Kgs.)
50 to 150	0.139

### STRAIGHT CONNECTOR

WIDTH(mm)	WT. (Kgs.)
50 to 300	0.135
450 to 900	0.180

### COVERS FOR STRAIGHT LENGTHS

WIDTH(mm)	WT. (Kgs.)
50	1.908
75	2.735
100	3.233
150	4.484
225	6.371
300	8.226
450	14.363
600	18.847
750	29.055
900	34.673

### PHDT - ELBOW HORIZONTAL

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
50	0.201	0.392
75	0.223	0.445
100	0.265	0.530
150	0.371	0.731
225	0.657	1.304
300	0.922	1.834
450	1.961	3.922
600	2.989	5.978
750	5.978	11.946
900	8.056	15.900

### PHDT - CROSS HORIZONTAL

WIDTH(mm)	WT. (Kgs.)
50	1.145
75	1.505
100	1.664
150	1.961
225	3.042
300	3.922
450	7.367
600	10.388
750	18.868
900	24.613

### PHDT - TEE HORIZONTAL

WIDTH(mm)	WT. (Kgs.)
50	0.880
75	1.039
100	1.166
150	1.431
225	2.385
300	3.127
450	6.212
600	9.031
750	16.186
900	22.705

### PHDT - EXTERNAL RISER

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
50	0.244	0.488
75	0.297	0.583
100	0.339	0.678
150	0.435	0.869
225	0.700	1.399
300	0.880	1.749
450	1.516	3.021
600	1.961	3.922
750	3.127	6.254
900	3.774	7.547

### PHDT - INTERNAL RISER

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
50	0.254	0.509
75	0.297	0.615
100	0.630	0.721
150	0.466	0.933
225	0.742	1.484
300	0.636	1.908
450	1.675	3.339
600	2.173	4.346
750	3.593	7.176
900	4.102	8.183

## MEDIUM DUTY INSIDE RETURN FLANGE CABLE TRAYS

### FOR STRAIGHT LENGTHS AND ACCESSORIES

Range / Width (W)	Thickness (T)	Side Height (H)
All dimensions are in mm		
50 to 150	1.0	25
225 to 300	1.2	25
450 to 600	1.5	25
750 to 900	2.0	25

### STANDARD FINISHES

HDG	Hot dip Galvanized to BS EN ISO 1461:1999 (Formerly BS 729)
PG	Pre-galvanized to BS EN 10142 & 10143
PC	Powder Coating to suit clients requirements
SS	Stainless steel finish to required grades

- Medium duty inside return flange cable trays are produced in a standard length of 3 mtrs but can be produced in different lengths on request.
- Medium duty inside return flange cable tray accessories are produced to standard radius of 300 mm but can be produced in 450 mm, 600mm and 900 mm as required.
- Accessory covers and clamp details have been provided at the end of cable tray chapter.

### COVERS FOR STRAIGHT LENGTHS AND ACCESSORIES

Range / Width (W)	Thickness (T)	Side Height (H)
All dimensions are in mm		
50 to 300	1.0	11
450 to 600	1.2	11
750 to 900	1.5	11

### ORDER PATTERN

To select the required component, please specify the type, component, width, finish. Angles can be mentioned wherever necessary.

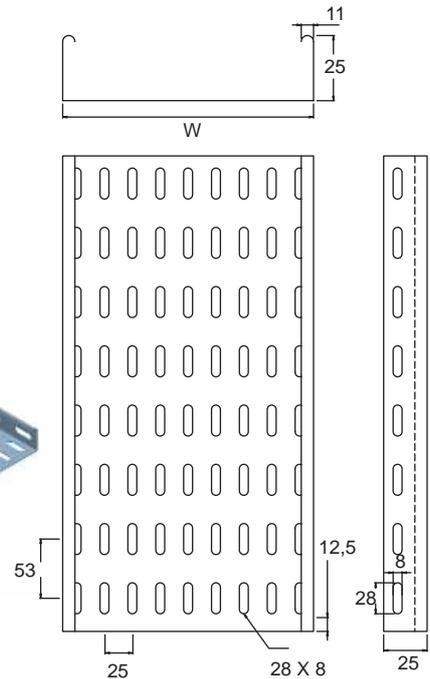
#### EXAMPLE:

TYPE / COMPONENT / WIDTH / FINISH (without angle)      MDT / COM / WIDTH / HDG  
 TYPE / COMPONENT / WIDTH / ANGLE / FINISH (with angle)      MDT / COM / WIDTH / A / HDG

**Note:**    *For special finishes consult our sales team, factory*  
               *For special sizes, gauges, flanges, consult our sales team, factory*

## MEDIUM DUTY INSIDE RETURN FLANGE TRAY - (MDT)

PART REF
MDT / CT / 50 / Finish
MDT / CT / 75 / Finish
MDT / CT / 100 / Finish
MDT / CT / 150 / Finish
MDT / CT / 225 / Finish
MDT / CT / 300 / Finish
MDT / CT / 450 / Finish
MDT / CT / 600 / Finish
MDT / CT / 750 / Finish
MDT / CT / 900 / Finish



MDT Cable Trays are produced with inside return flange for medium duty applications

### CONNECTORS

MDT CableTrays are joined together by straight & flange connectors. Connectors are supplied in pairs with a set of M6 x 12 roofing bolts, nuts and washers. Load graphs provided in the manual are based on MDT/SC. To be ordered separately.

#### STRAIGHT CONNECTOR

**PART REF**

MDT / SC / Width / Finish

Width (mm)	Thickness (mm)
50 to 300	1.5
450 to 900	2.0

#### FLANGE CONNECTOR

**PART REF**

MDT / FC / Width / Finish

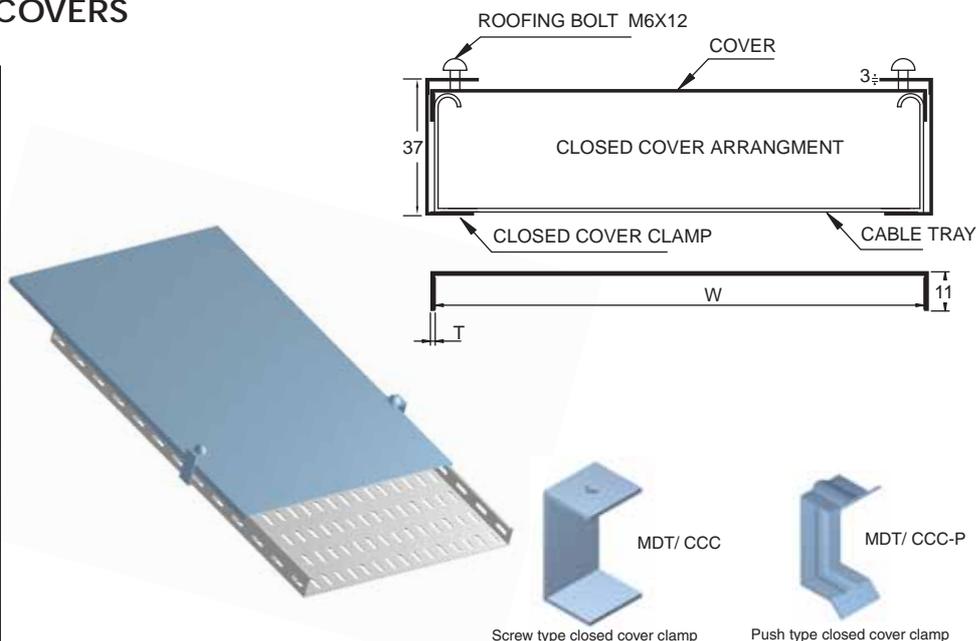
Width (mm)	Thickness (mm)
50 to 300	1.5
450 to 900	2.0

- Flange connectors are provided for extra strength. Flange connectors wrap up the trays from outside and increases the load bearing capacity of the tray.
- Select appropriate connector to suit your requirements.

# MEDIUM DUTY INSIDE RETURN FLANGE CABLE TRAYS

## CABLE TRAY CLOSED COVERS

PART REF
MDT / CTCC / 50 / Finish
MDT / CTCC / 75 / Finish
MDT / CTCC / 100 / Finish
MDT / CTCC / 150 / Finish
MDT / CTCC / 225 / Finish
MDT / CTCC / 300 / Finish
MDT / CTCC / 450 / Finish
MDT / CTCC / 600 / Finish
MDT / CTCC / 750 / Finish
MDT / CTCC / 900 / Finish

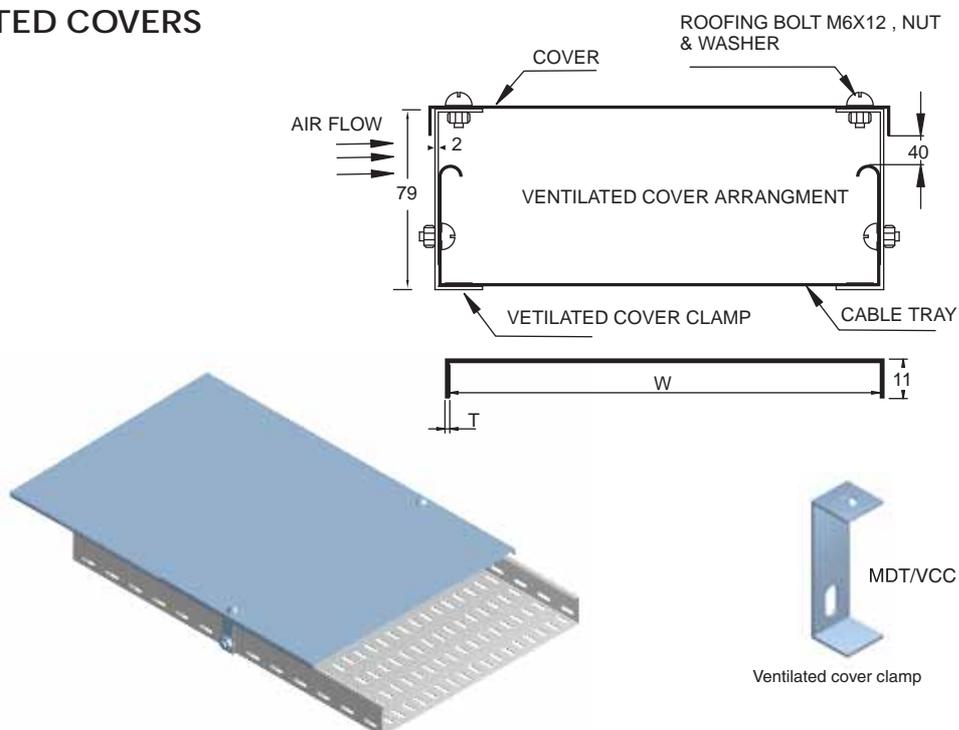


### CLOSED COVER CLAMP

Screw type closed cover clamp MDT/CCC is supplied for closed cover arrangement with the set of M6 x 12 roofing bolts & washers. MDT/CCC-P is a push type option and requires no bolts. To be ordered separately.

## CABLE TRAY VENTILATED COVERS

PART REF
MDT / CT VC / 50 / Finish
MDT / CT VC / 75 / Finish
MDT / CT VC / 100 / Finish
MDT / CT VC / 150 / Finish
MDT / CT VC / 225 / Finish
MDT / CT VC / 300 / Finish
MDT / CT VC / 450 / Finish
MDT / CT VC / 600 / Finish
MDT / CT VC / 750 / Finish
MDT / CT VC / 900 / Finish



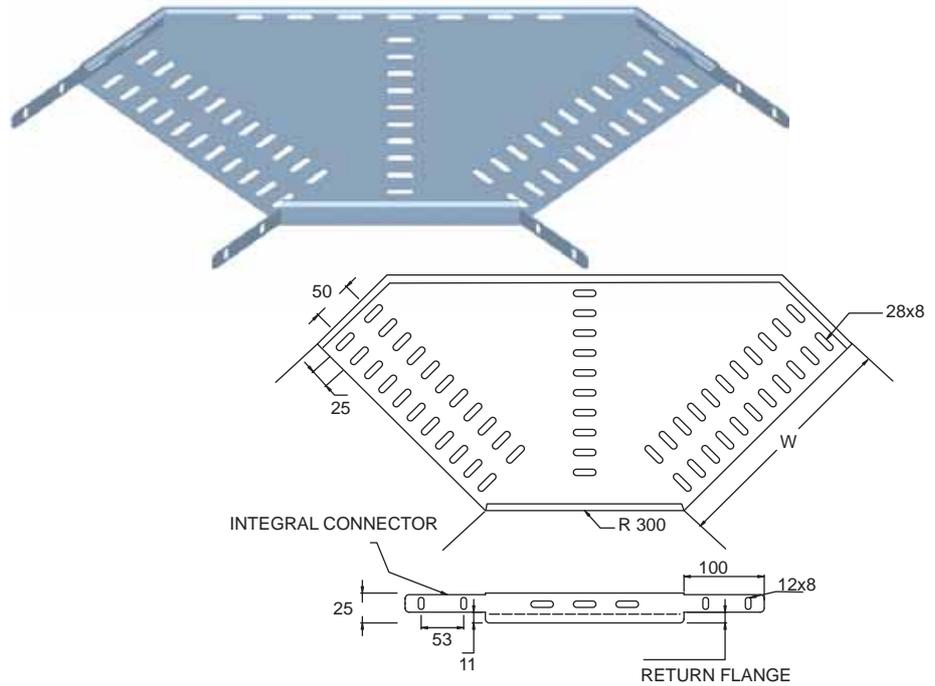
### VENTILATED COVER CLAMP

Ventilated cover clamp is supplied for Ventilated cover arrangement with the set of M6 x 12 roofing bolts, nuts & washers. To be ordered separately

- Covers can be used as closed or ventilated by using an appropriate clamp. Necessary holes are provided on the covers for clamping
- Covers can be produced with louvers also on request

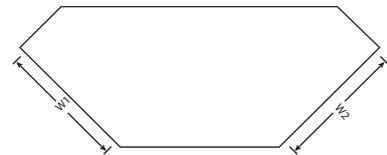
## MDT - ELBOW HORIZONTAL 30° / 45° / 60° / 90°

PART REF
MDT / EH / 50 / A / Finish
MDT / EH / 75 / A / Finish
MDT / EH / 100 / A / Finish
MDT / EH / 150 / A / Finish
MDT / EH / 225 / A / Finish
MDT / EH / 300 / A / Finish
MDT / EH / 450 / A / Finish
MDT / EH / 600 / A / Finish
MDT / EH / 750 / A / Finish
MDT / EH / 900 / A / Finish



## MDT UNEQUAL ELBOW - 30° / 45° / 60° / 90°

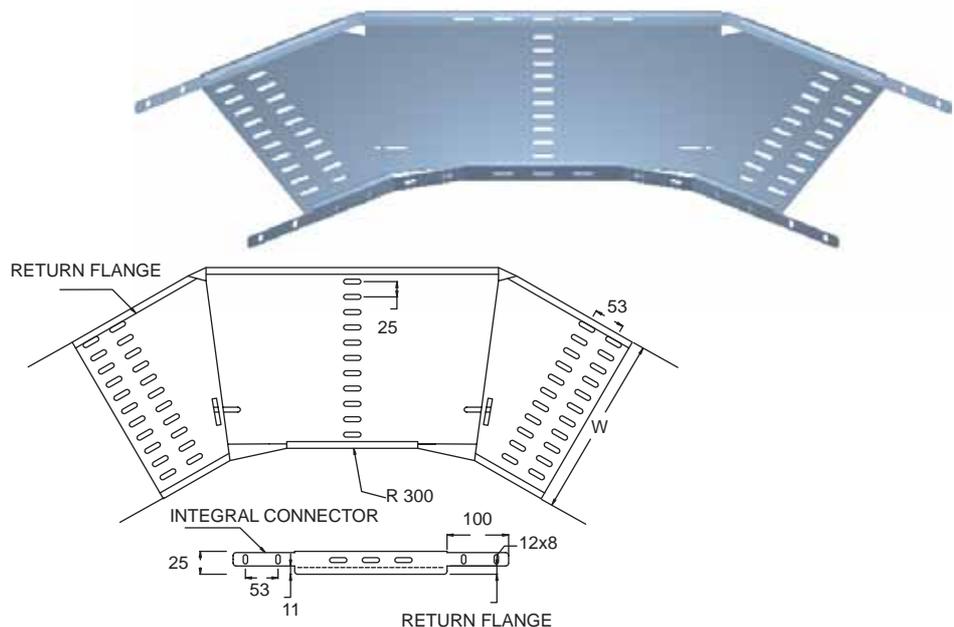
PART REF
MDT / UEH / W1 / W2 / A / Finish



- Thickness for UEH to be followed of the larger size. For details refer page no. 36
- For unequal elbow specify the widths as W1 & W2 as shown in the fig.

## MDT - ADJUSTABLE ELBOW

PART REF
MDT / AEH / 50 / Finish
MDT / AEH / 75 / Finish
MDT / AEH / 100 / Finish
MDT / AEH / 150 / Finish
MDT / AEH / 250 / Finish
MDT / AEH / 300 / Finish
MDT / AEH / 450 / Finish
MDT / AEH / 600 / Finish
MDT / AEH / 750 / Finish
MDT / AEH / 900 / Finish

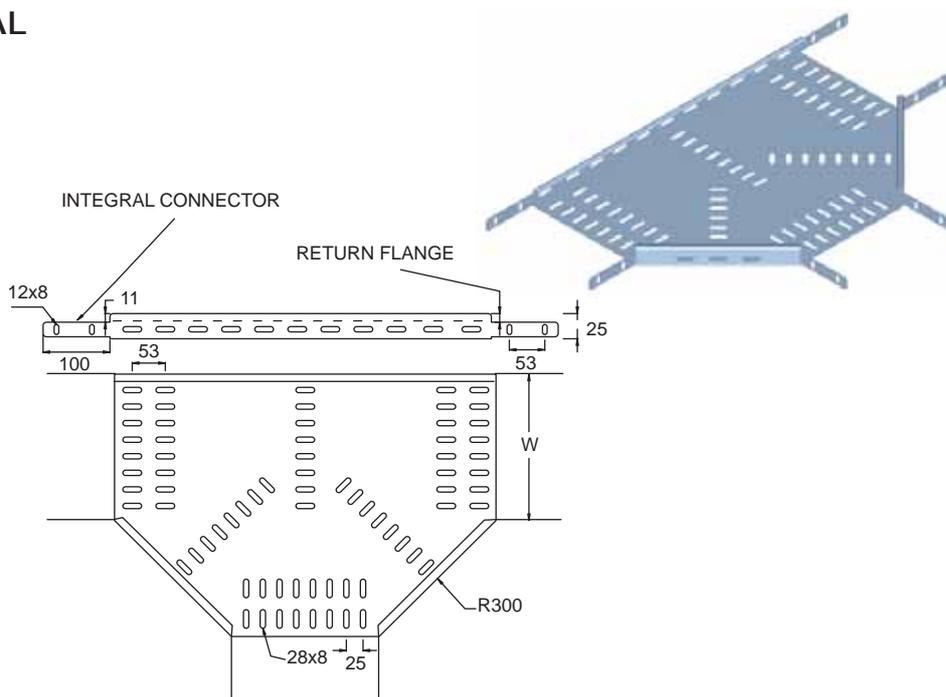


Adjustable elbow can be fixed to any desired angle depending on the site application.

# MEDIUM DUTY INSIDE RETURN FLANGE CABLE TRAYS

## MDT - TEE HORIZONTAL

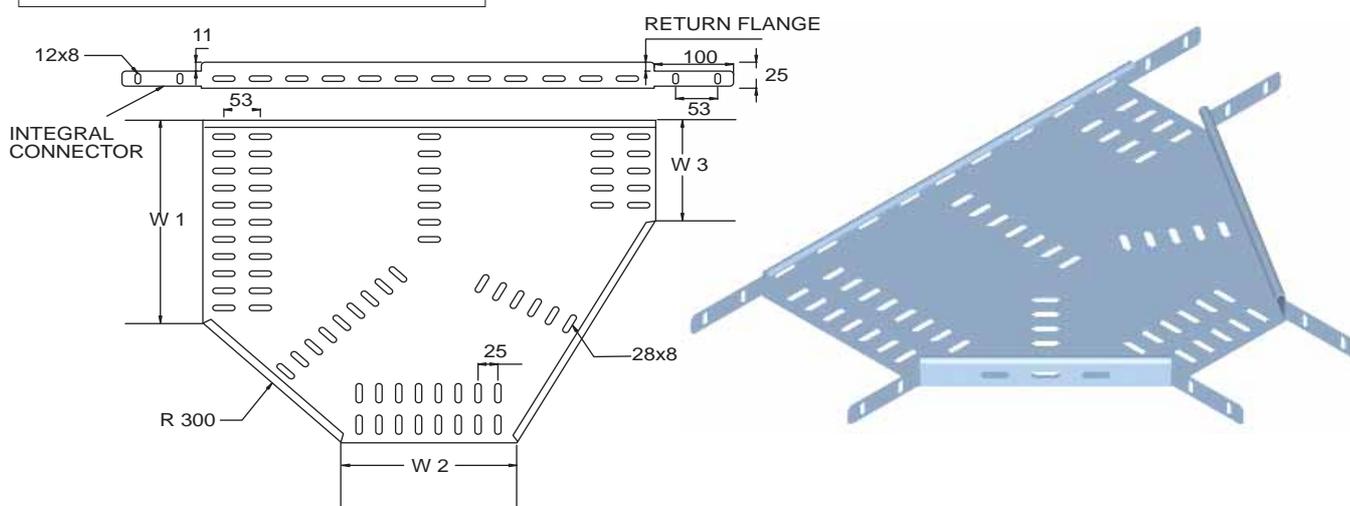
PART REF
MDT / TH / 50 / Finish
MDT / TH / 75 / Finish
MDT / TH / 100 / Finish
MDT / TH / 150 / Finish
MDT / TH / 225 / Finish
MDT / TH / 300 / Finish
MDT / TH / 450 / Finish
MDT / TH / 600 / Finish
MDT / TH / 750 / Finish
MDT / TH / 900 / Finish



- PSI Tray accessories are produced in a single piece and carry no welding. This design gives the component extra strength, rigidity and ease of installation.
- Bonding Jumpers are used for the Earthing Connectivity. For details refer page 84
- PSI - Tray accessories are produced with integral connectors. No separate connectors are required.

## MDT - UN EQUAL TEE

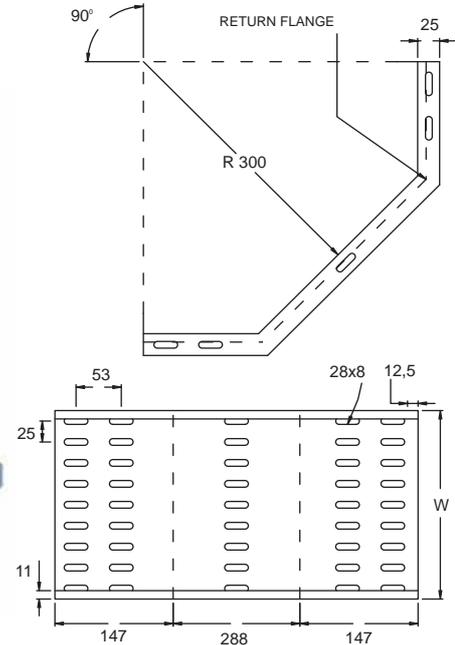
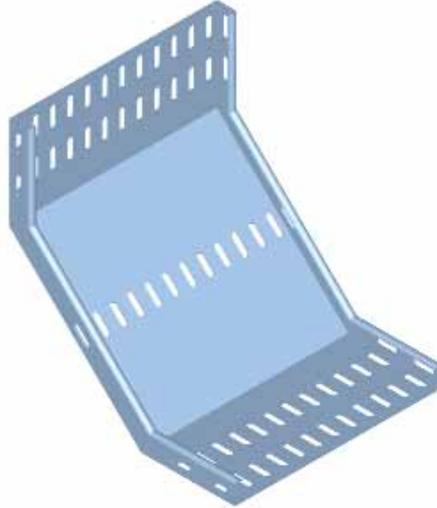
PART REF
MDT / UTH / W1 / W2 / W3 / Finish



- For Unequal Tee specify widths W1, W2, W3 anti clockwise
- Thickness for Unequal Tee to be followed of the larger size refer page 36
- Unequal Tee can accommodate trays with unequal widths at one location.

## MDT - INTERNAL RISER - 30° / 45° / 60° / 90°

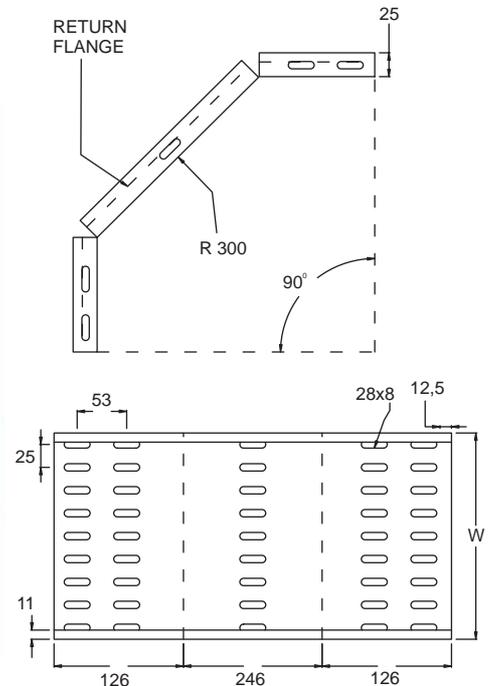
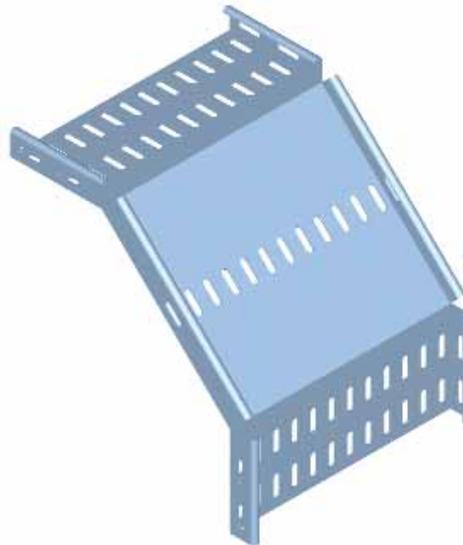
PART REF
MDT / IR / 50 / A / Finish
MDT / IR / 75 / A / Finish
MDT / IR / 100 / A / Finish
MDT / IR / 150 / A / Finish
MDT / IR / 225 / A / Finish
MDT / IR / 300 / A / Finish
MDT / IR / 450 / A / Finish
MDT / IR / 600 / A / Finish
MDT / IR / 750 / A / Finish
MDT / IR / 900 / A / Finish



Risers are joined to MDT Trays by straight & flange connectors. For details refer page 37

## MDT - EXTERNAL RISER - 30° / 45° / 60° / 90°

PART REF
MDT / ER / 50 / A / Finish
MDT / ER / 75 / A / Finish
MDT / ER / 100 / A / Finish
MDT / ER / 150 / A / Finish
MDT / ER / 225 / A / Finish
MDT / ER / 300 / A / Finish
MDT / ER / 450 / A / Finish
MDT / ER / 600 / A / Finish
MDT / ER / 750 / A / Finish
MDT / ER / 900 / A / Finish

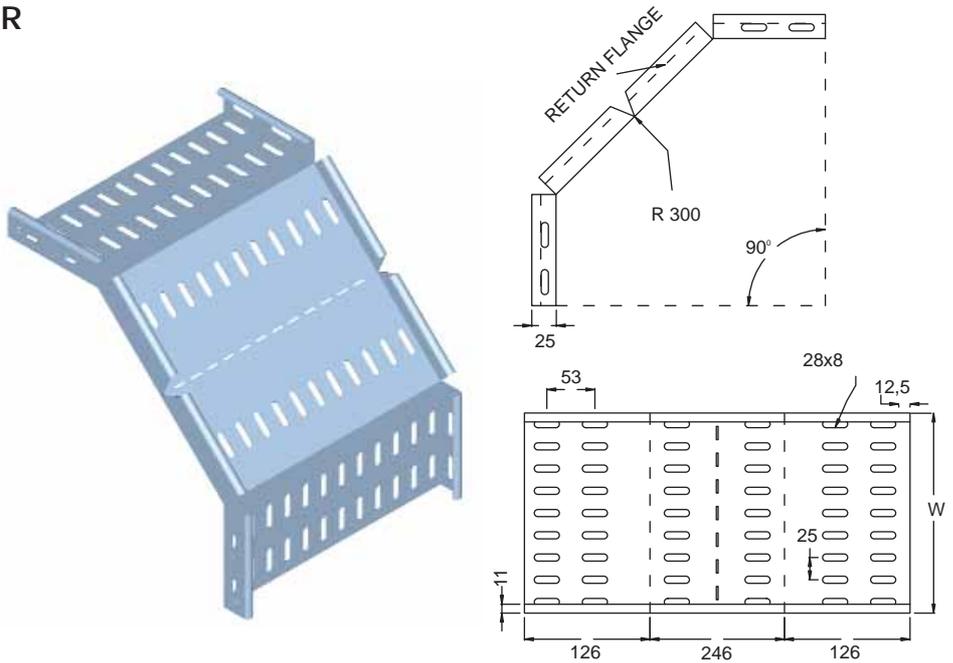


- Fish Plates are recommended for the trays & accessories above 200mm widths for better load bearing capacity.
- For support system for the installation, please refer Metal strut framing system of this manual.
- For Accessory Cover details refer page 78.
- For special gauges, sizes or design, consult our sales team or factory.

# MEDIUM DUTY INSIDE RETURN FLANGE CABLE TRAYS

## MDT - ADJUSTABLE RISER

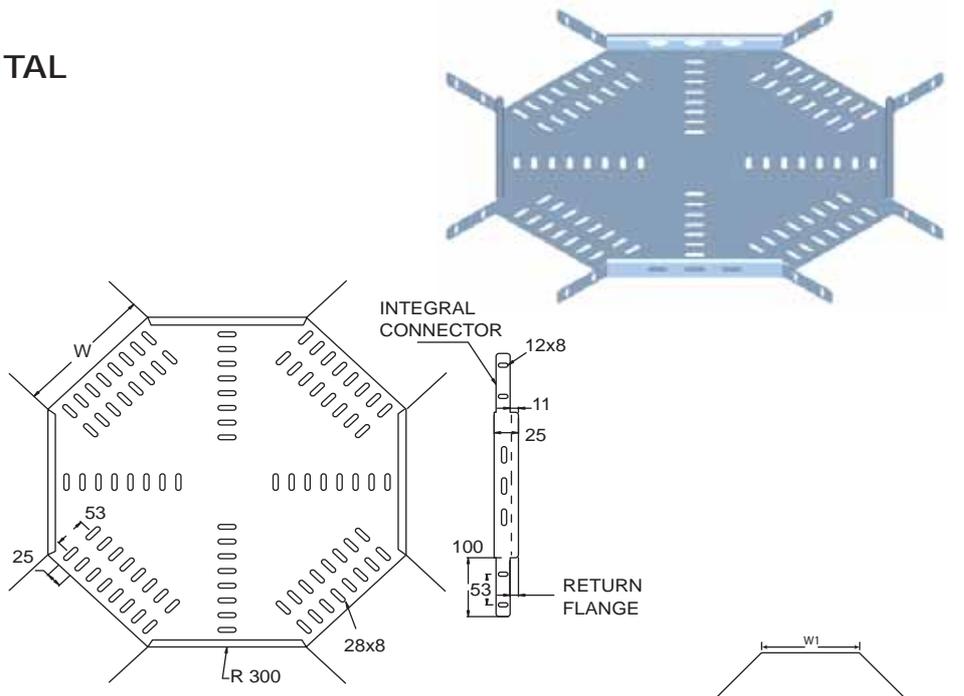
PART REF
MDT / AR / 50 / Finish
MDT / AR / 75 / Finish
MDT / AR / 100 / Finish
MDT / AR / 150 / Finish
MDT / AR / 225 / Finish
MDT / AR / 300 / Finish
MDT / AR / 450 / Finish
MDT / AR / 600 / Finish
MDT / AR / 750 / Finish
MDT / AR / 900 / Finish



Extra long adjustable riser can be produced on request and is specified by MDT / XLAR / WIDTH / FINISH

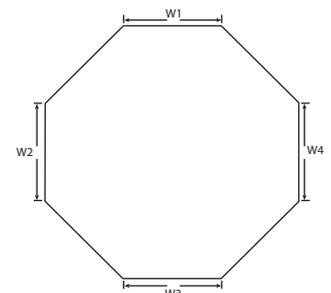
## MDT - CROSS HORIZONTAL

PART REF
MDT / CH / 50 / Finish
MDT / CH / 75 / Finish
MDT / CH / 100 / Finish
MDT / CH / 150 / Finish
MDT / CH / 225 / Finish
MDT / CH / 300 / Finish
MDT / CH / 450 / Finish
MDT / CH / 600 / Finish
MDT / CH / 750 / Finish
MDT / CH / 900 / Finish



## MDT - UNEQUAL CROSS HORIZONTAL

PART REF
MDT / UCH / W1 / W2 / W3 / W4 / Finish

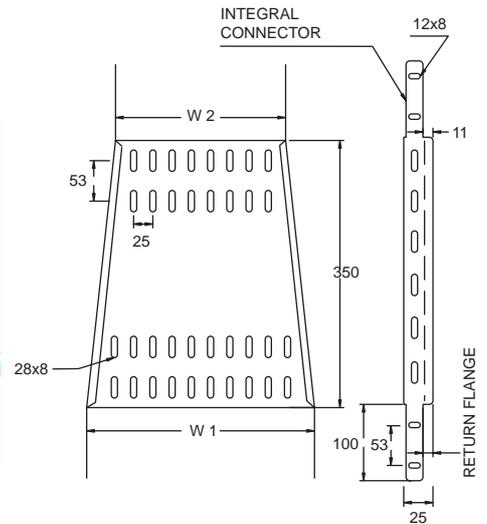
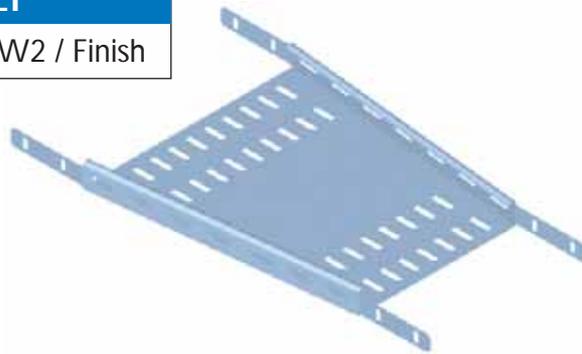


- For Un Equal Cross specify the widths as W1,W2,W3,W4 in anti-clockwise direction as shown in the fig.
- Thickness for Unequal Cross Horizontal to be followed of the larger size. For details refer page no. 36

## MDT - REDUCER STRAIGHT

### PART REF

MDT / RS / W1 / W2 / Finish

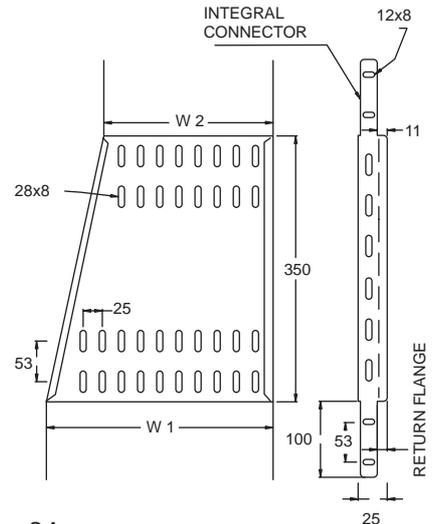
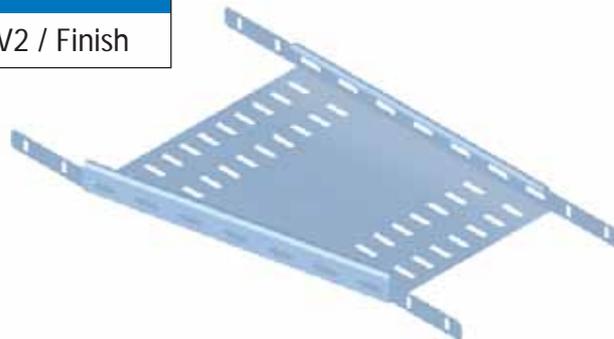


Reducing Connectors can also be used for reduction depending on the site application. For Reducing Connector details refer page 83

## MDT - REDUCER RIGHT

### PART REF

MDT / RR / W1 / W2 / Finish

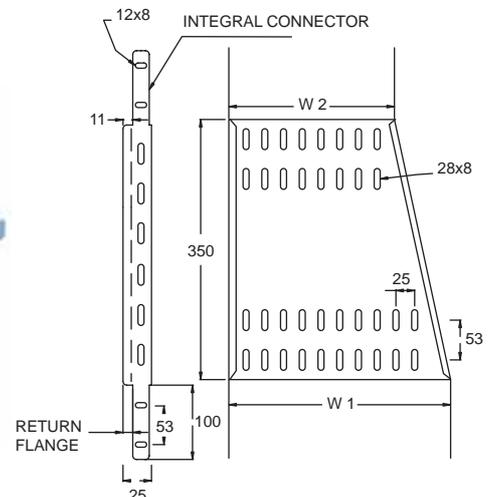
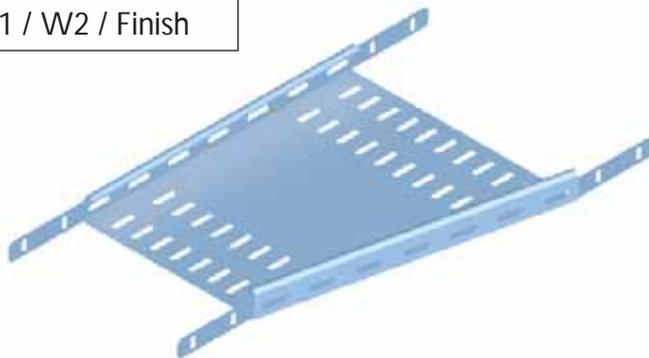


Bonding Jumpers are used for the Earthing Connectivity. For details refer page 84

## MDT - REDUCER LEFT

### PART REF

MDT / RL / W1 / W2 / Finish

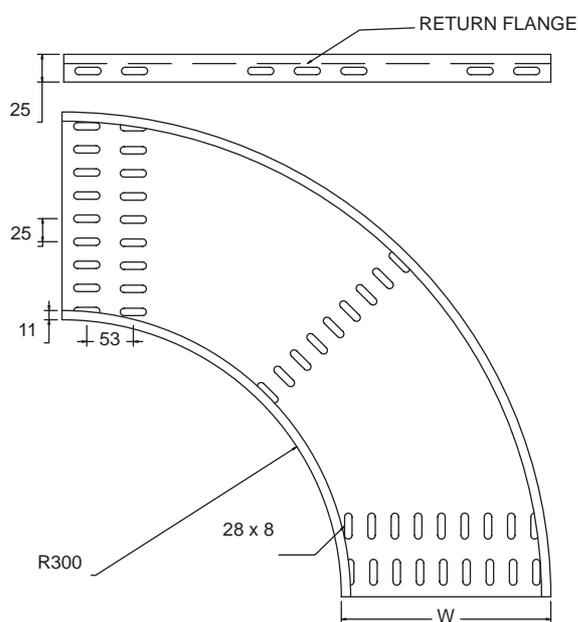
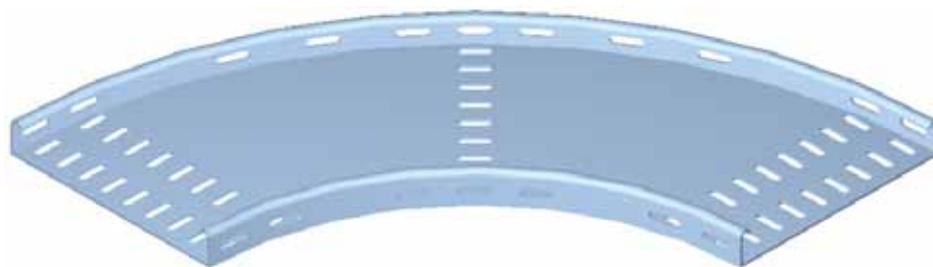


Thickness for the Reducers to be followed of the larger size. For details refer page no. 36  
For Accessory Cover details refer page 78.

# MEDIUM DUTY INSIDE RETURN FLANGE CABLE TRAYS ROUND RADIAL ACCESSORIES

## MDT - ELBOW HORIZONTAL 30° / 45° / 60° / 90°

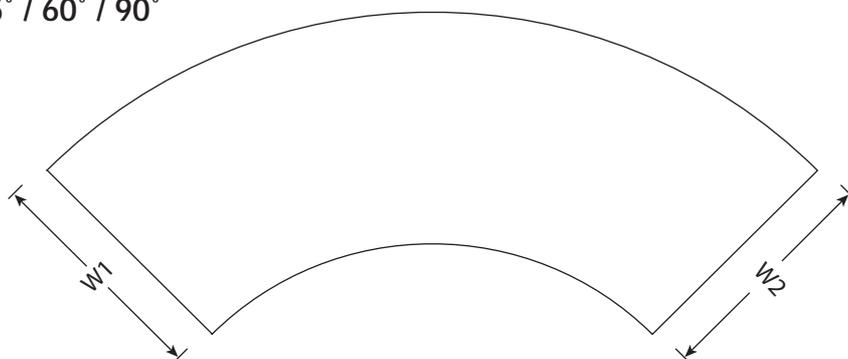
PART REF
MDT / EHR / 50 / A / Finish
MDT / EHR / 75 / A / Finish
MDT / EHR / 100 / A / Finish
MDT / EHR / 150 / A / Finish
MDT / EHR / 225 / A / Finish
MDT / EHR / 300 / A / Finish
MDT / EHR / 450 / A / Finish
MDT / EHR / 600 / A / Finish
MDT / EHR / 750 / A / Finish
MDT / EHR / 900 / A / Finish



- MDT Round Radial Accessories are joined by connectors. For details refer page 37
- For details on Thickness, Width and Finish refer page 36
- Adjustable elbows are produced on request and are specified as MDT / AEH / Width / Finish. For details refer page 39

## MDT UNEQUAL ELBOW - 30° / 45° / 60° / 90°

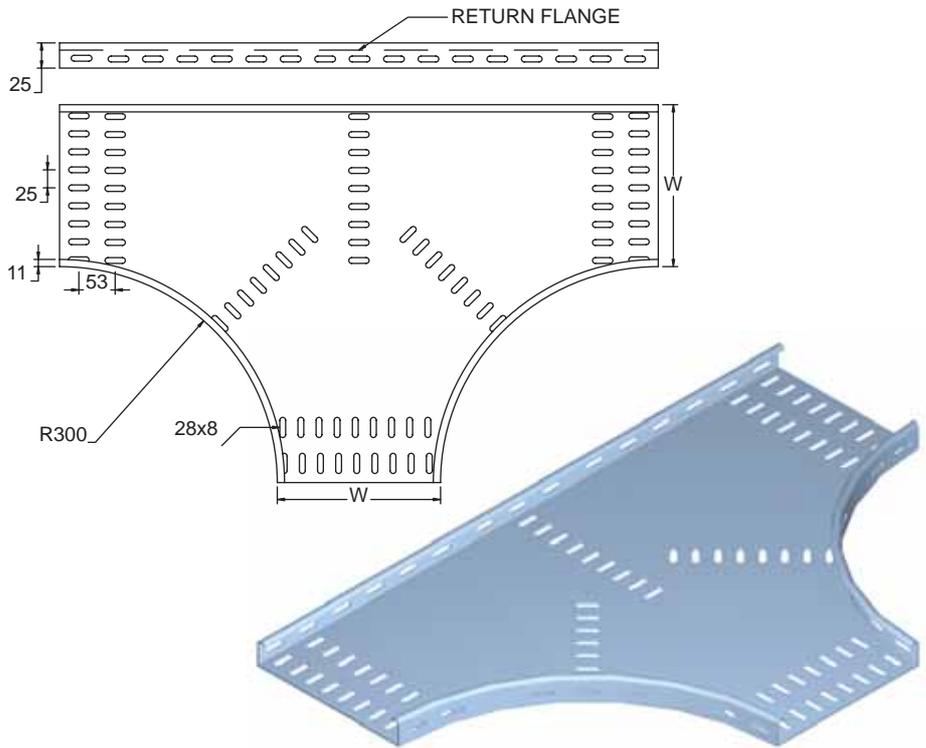
PART REF
MDT / UEHR / W1 / W2 / A / Finish



- Thickness for UEHR to be followed of the larger size. For details refer page 36.
- For unequal elbow specify the widths as W1 & W2 as shown in the fig.

## MDT - TEE HORIZONTAL

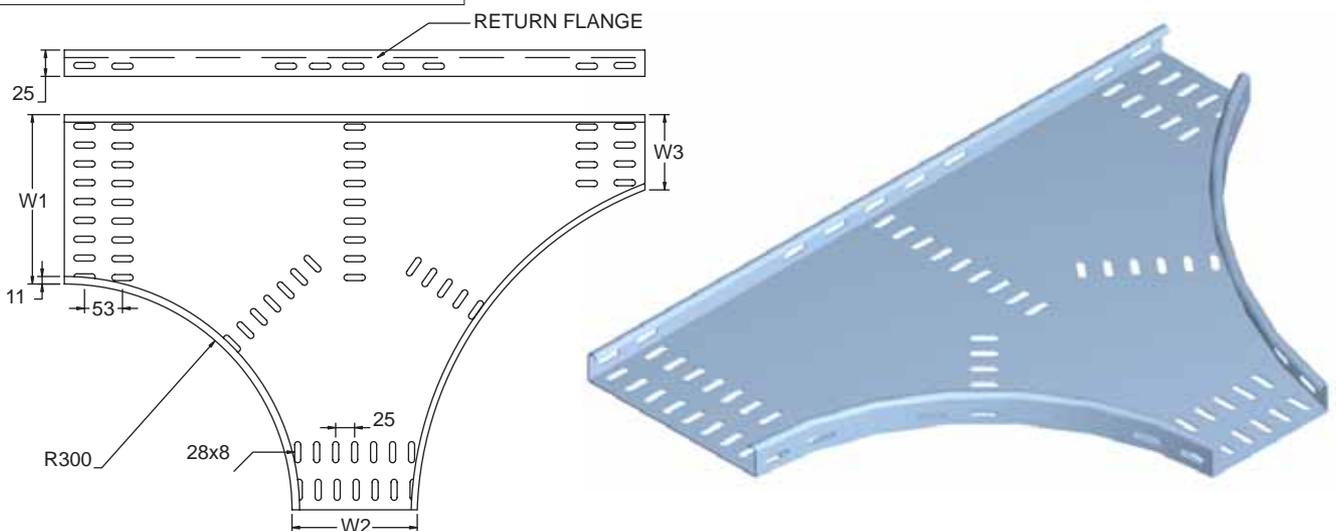
PART REF
MDT / THR / 50 / Finish
MDT / THR / 75 / Finish
MDT / THR / 100 / Finish
MDT / THR / 150 / Finish
MDT / THR / 225 / Finish
MDT / THR / 300 / Finish
MDT / THR / 450 / Finish
MDT / THR / 600 / Finish
MDT / THR / 750 / Finish
MDT / THR / 900 / Finish



- MDT Round Radial Accessories are joined by connectors. For details refer page 37
- Bonding Jumpers are used for the Earthing Connectivity. For details refer page 84
- Round radial accessory covers can be produced on request. For details refer new page 81.

## MDT - UN EQUAL TEE

PART REF
MDT / UTHR / W1 / W2 / W3 / Finish

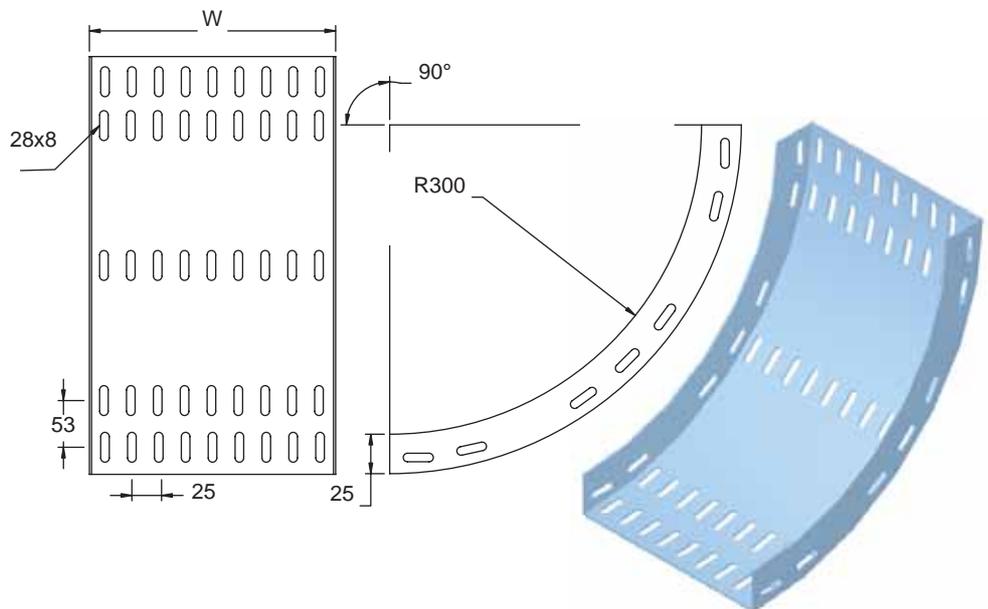


- For Unequal Tee specify widths W1, W2, W3 anti clockwise.
- Thickness for Unequal Tee to be followed of the larger size refer page 36.
- Unequal Tee can accommodate trays with unequal widths at one location.

# MEDIUM DUTY INSIDE RETURN FLANGE CABLE TRAYS ROUND RADIAL ACCESSORIES

## MDT - INTERNAL RISER - 30° / 45° / 60° / 90°

PART REF
MDT / IRR / 50 / A / Finish
MDT / IRR / 75 / A / Finish
MDT / IRR / 100 / A / Finish
MDT / IRR / 150 / A / Finish
MDT / IRR / 225 / A / Finish
MDT / IRR / 300 / A / Finish
MDT / IRR / 450 / A / Finish
MDT / IRR / 600 / A / Finish
MDT / IRR / 750 / A / Finish
MDT / IRR / 900 / A / Finish



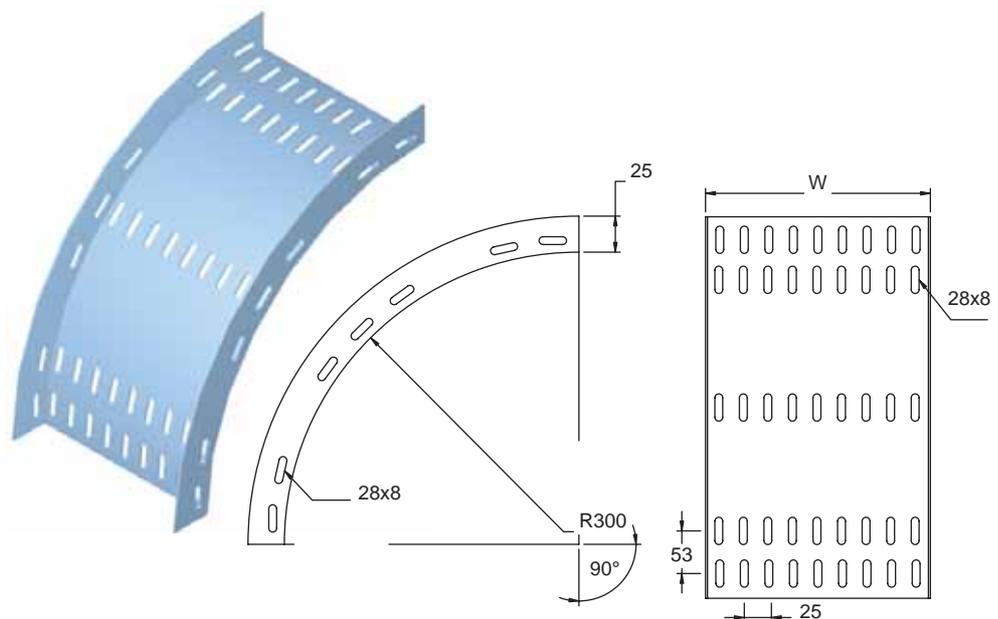
Risers are joined to MDT Trays by straight connectors. For details refer page 37.

Adjustable risers are produced on request and are specified by MDT / AR / Width / Finish. For details refer page 42.

Extra long adjustable risers are produced on request and are specified by MDT / XLAR / Width / Finish.

## MDT - EXTERNAL RISER - 30° / 45° / 60° / 90°

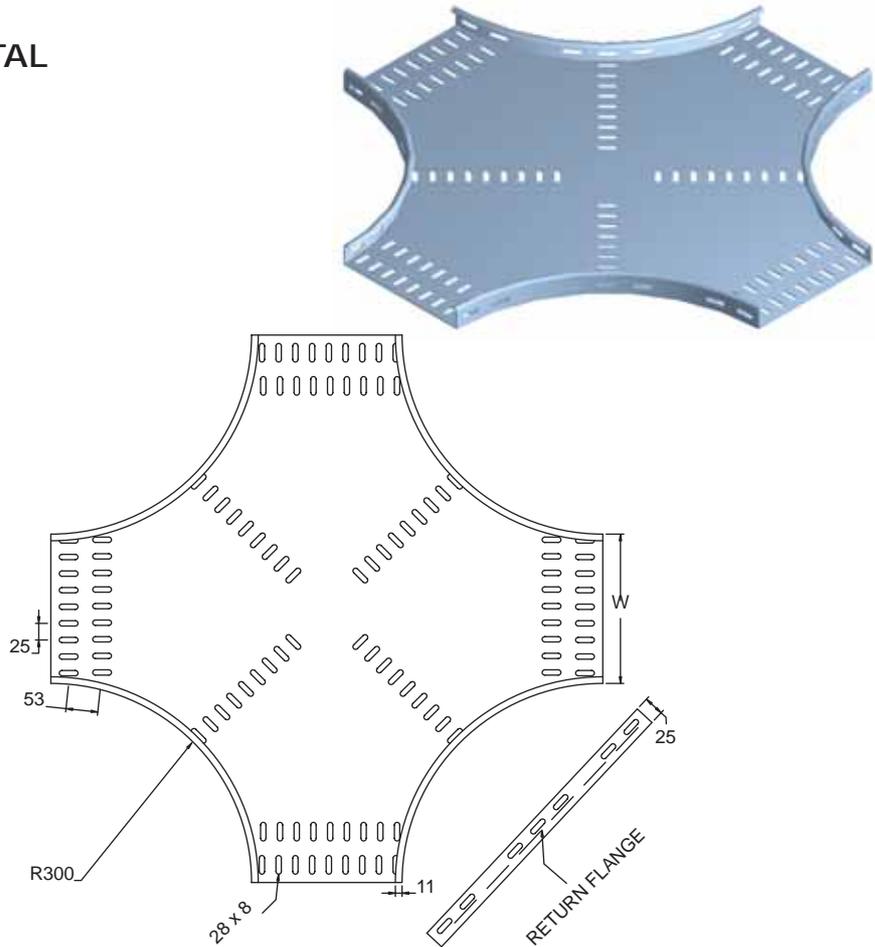
PART REF
MDT / ERR / 50 / A / Finish
MDT / ERR / 75 / A / Finish
MDT / ERR / 100 / A / Finish
MDT / ERR / 150 / A / Finish
MDT / ERR / 225 / A / Finish
MDT / ERR / 300 / A / Finish
MDT / ERR / 450 / A / Finish
MDT / ERR / 600 / A / Finish
MDT / ERR / 750 / A / Finish
MDT / ERR / 900 / A / Finish



- Fish Plates are recommended for the trays & accessories above 200mm widths for better load bearing capacity.
- For support system for the installation, please refer Metal strut framing system of this manual.
- Round Radial Accessory Covers are produced on request. For details refer page 81.
- For special gauges, sizes or design, consult our sales team or factory.

## MDT - CROSS HORIZONTAL

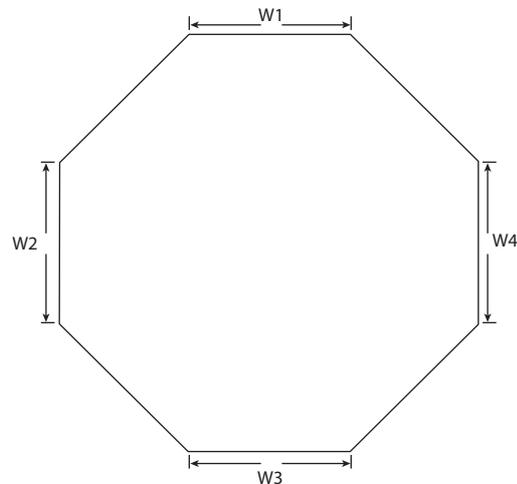
PART REF
MDT / CHR / 50 / Finish
MDT / CHR / 75 / Finish
MDT / CHR / 100 / Finish
MDT / CHR / 150 / Finish
MDT / CHR / 225 / Finish
MDT / CHR / 300 / Finish
MDT / CHR / 450 / Finish
MDT / CHR / 600 / Finish
MDT / CHR / 750 / Finish
MDT / CHR / 900 / Finish



- MDT Round Radial Accessories are joined by connectors. For details refer page 37.
- Round Radial Accessory covers are produced on request. For details refer page 81.

## MDT - UNEQUAL CROSS HORIZONTAL

PART REF
MDT / UCHR / W1 / W2 / W3 / W4 / Finish



- For Un Equal Cross specify the widths as W1,W2,W3,W4 in anti-clockwise direction as shown in the fig.
- Thickness for Unequal Cross Horizontal to be followed of the larger size. For details refer page no. 36
- For MDT reducer details, refer page 43.

# MEDIUM DUTY INSIDE RETURN FLANGE CABLE TRAY

## WEIGHT OF THE COMPONENTS

### MDT - CABLE TRAY

WIDTH(mm)	WT. (Kgs.)
50	2.703
75	2.926
100	3.752
150	4.812
225	7.674
300	9.572
450	16.706
600	21.423
750	34.927
900	41.255

### STRAIGHT CONNECTOR

WIDTH(mm)	WT. (Kgs.)
50 to 300	0.115
450 to 900	0.153

### FLANGE CONNECTOR

WIDTH(mm)	WT. (Kgs.)
50 to 300	0.159
450 to 900	0.213

### COVERS FOR STRAIGHT LENGTHS

WIDTH(mm)	WT. (Kgs.)
50	1.908
75	2.735
100	3.233
150	4.484
225	6.371
300	8.226
450	14.363
600	18.847
750	29.055
900	34.673

### MDT - ELBOW HORIZONTAL

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
50	0.201	0.371
75	0.223	0.424
100	0.265	0.509
150	0.371	0.710
225	0.647	1.261
300	0.901	1.791
450	1.940	3.869
600	2.968	5.925
750	5.947	11.883
900	7.961	15.911

### MDT - CROSS HORIZONTAL

WIDTH(mm)	WT. (Kgs.)
50	0.912
75	1.092
100	1.272
150	1.664
225	2.332
300	3.106
450	5.894
600	8.512
750	14.480
900	18.879

### MDT - TEE HORIZONTAL

WIDTH(mm)	WT. (Kgs.)
50	0.859
75	1.018
100	1.145
150	1.399
225	2.311
300	3.074
450	6.137
600	8.957
750	16.133
900	22.631

### MDT - EXTERNAL RISER

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
50	0.233	0.466
75	0.286	0.562
100	0.329	0.657
150	0.435	0.848
225	0.689	1.367
300	0.859	1.707
450	1.495	2.989
600	1.929	3.848
750	3.095	6.190
900	3.710	7.409

### MDT - INTERNAL RISER

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
50	0.244	0.488
75	0.297	0.594
100	0.350	0.700
150	0.456	0.912
225	0.742	1.463
300	0.965	1.844
450	1.601	3.233
600	2.088	4.166
750	3.551	7.102
900	4.028	8.056

For Accessories Cover, refer page no 78.

# HEAVY DUTY INSIDE RETURN FLANGE CABLE TRAYS

## FOR STRAIGHT LENGTHS AND ACCESSORIES

Range / Width (W)	Thickness (T)	Side Height (H)
All dimensions are in mm		
75 to 150	1.0	50
225 to 300	1.2	50
450 to 600	1.5	50
750 to 900	2.0	50

## STANDARD FINISHES

HDG	Hot dip Galvanized to BS EN ISO 1461:1999 (Formerly BS 729)
PG	Pre-galvanized to BS EN 10142 & 10143
PC	Powder Coating to suit clients requirements
SS	Stainless steel finish to required grades

- Heavy duty inside return flange cable trays are produced in a standard length of 3 mtrs but can be produced in different lengths on request.
- Heavy duty inside return flange cable tray accessories are produced to standard radius of 300 mm but can be produced in 450 mm, 600mm and 900 mm as required.
- Accessory cover and clamp details have been provided at the end of cable tray chapter.

## COVERS FOR STRAIGHT LENGTHS AND ACCESSORIES

Range / Width (W)	Thickness (T)	Side Height (H)
All dimensions are in mm		
75 to 300	1.0	11
450 to 600	1.2	11
750 to 900	1.5	11

## ORDER PATTERN

To select the required component, please specify the type, component, width, finish. Angles can be mentioned wherever necessary.

### EXAMPLE:

TYPE / COMPONENT / WIDTH / FINISH (without angle)      HDT / COM / WIDTH / HDG  
 TYPE / COMPONENT / WIDTH / ANGLE / FINISH (with angle) HDT / COM / WIDTH / A / HDG

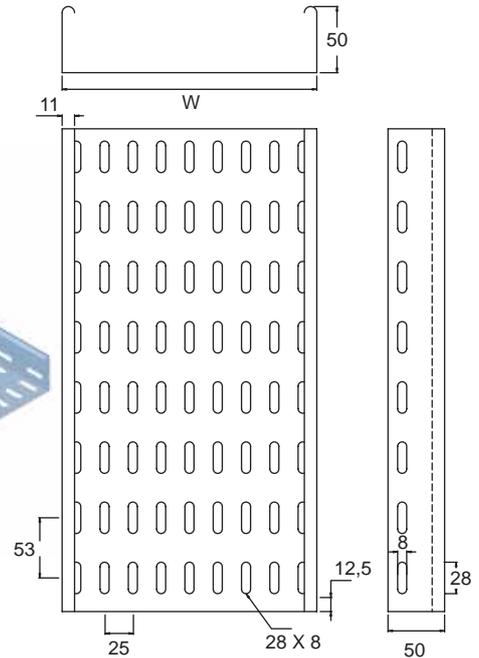
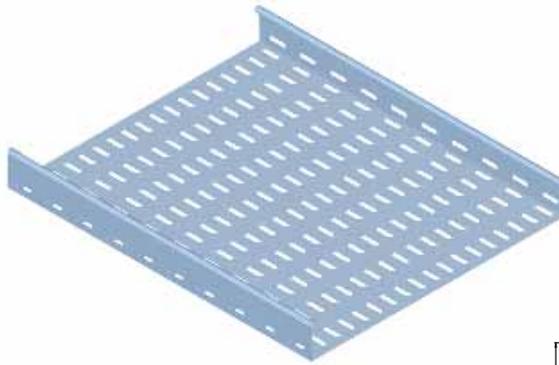
Note: For special finishes consult our sales team, factory  
 For special sizes, gauges, flanges, consult our sales team, factory



# HEAVY DUTY INSIDE RETURN FLANGE CABLE TRAYS

## HEAVY DUTY INSIDE RETURN FLANGE TRAY - (HDT)

PART REF
HDT / CT / 75 / Finish
HDT / CT / 100 / Finish
HDT / CT / 150 / Finish
HDT / CT / 225 / Finish
HDT / CT / 300 / Finish
HDT / CT / 450 / Finish
HDT / CT / 600 / Finish
HDT / CT / 750 / Finish
HDT / CT / 900 / Finish



HDT CableTrays are produced with inside return flange for heavy duty applications

### CONNECTORS

HDT CableTrays are joined together by straight & flange connectors. Connectors are supplied in pairs with a set of M6 x 12 roofing bolts, nuts and washers. Load graphs provided in the manual are based on HDT/SC. To be ordered separately.

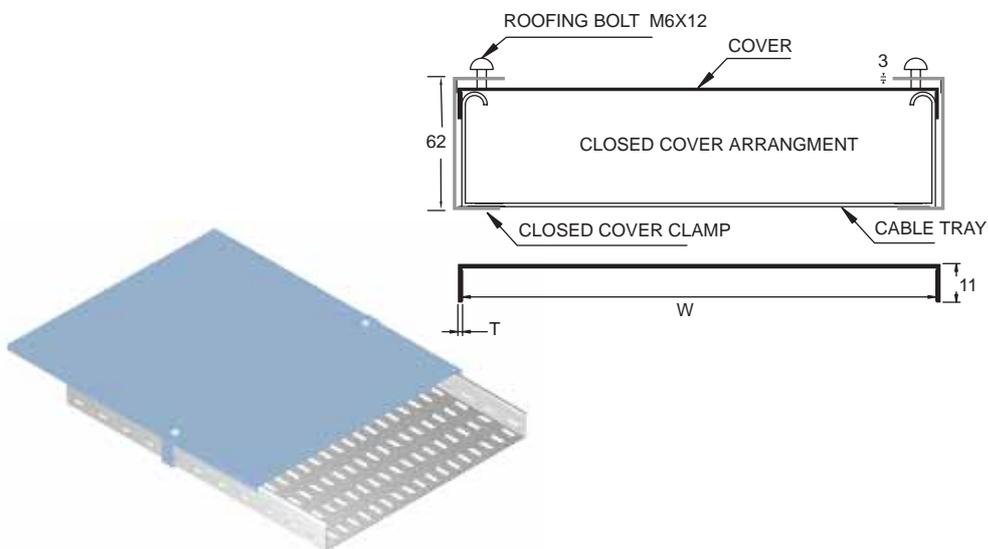
STRAIGHT CONNECTOR		FLANGE CONNECTOR													
<table border="1"> <thead> <tr> <th colspan="2">PART REF</th> </tr> <tr> <td colspan="2">HDT / SC / Width / Finish</td> </tr> </thead> </table>		PART REF		HDT / SC / Width / Finish		<table border="1"> <thead> <tr> <th colspan="2">PART REF</th> </tr> <tr> <td colspan="2">HDT / FC / Width / Finish</td> </tr> </thead> </table>		PART REF		HDT / FC / Width / Finish					
PART REF															
HDT / SC / Width / Finish															
PART REF															
HDT / FC / Width / Finish															
<table border="1"> <thead> <tr> <th>Width (mm)</th> <th>Thickness (mm)</th> </tr> </thead> <tbody> <tr> <td>75 to 300</td> <td>1.5</td> </tr> <tr> <td>450 to 900</td> <td>2.0</td> </tr> </tbody> </table>	Width (mm)	Thickness (mm)	75 to 300	1.5	450 to 900	2.0	<table border="1"> <thead> <tr> <th>Width (mm)</th> <th>Thickness (mm)</th> </tr> </thead> <tbody> <tr> <td>75 to 300</td> <td>1.5</td> </tr> <tr> <td>450 to 900</td> <td>2.0</td> </tr> </tbody> </table>	Width (mm)	Thickness (mm)	75 to 300	1.5	450 to 900	2.0		
Width (mm)	Thickness (mm)														
75 to 300	1.5														
450 to 900	2.0														
Width (mm)	Thickness (mm)														
75 to 300	1.5														
450 to 900	2.0														

- Flange connectors are provided for extra strength. Flange connectors wrap up the trays from outside and increases the load bearing capacity of the tray.
- Select an appropriate connector to suit your requirements

# HEAVY DUTY INSIDE RETURN FLANGE CABLE TRAYS

## CABLE TRAY CLOSED COVERS

PART REF
HDT / CTCC / 75 / Finish
HDT / CTCC / 100 / Finish
HDT / CTCC / 150 / Finish
HDT / CTCC / 225 / Finish
HDT / CTCC / 300 / Finish
HDT / CTCC / 450 / Finish
HDT / CTCC / 600 / Finish
HDT / CTCC / 750 / Finish
HDT / CTCC / 900 / Finish

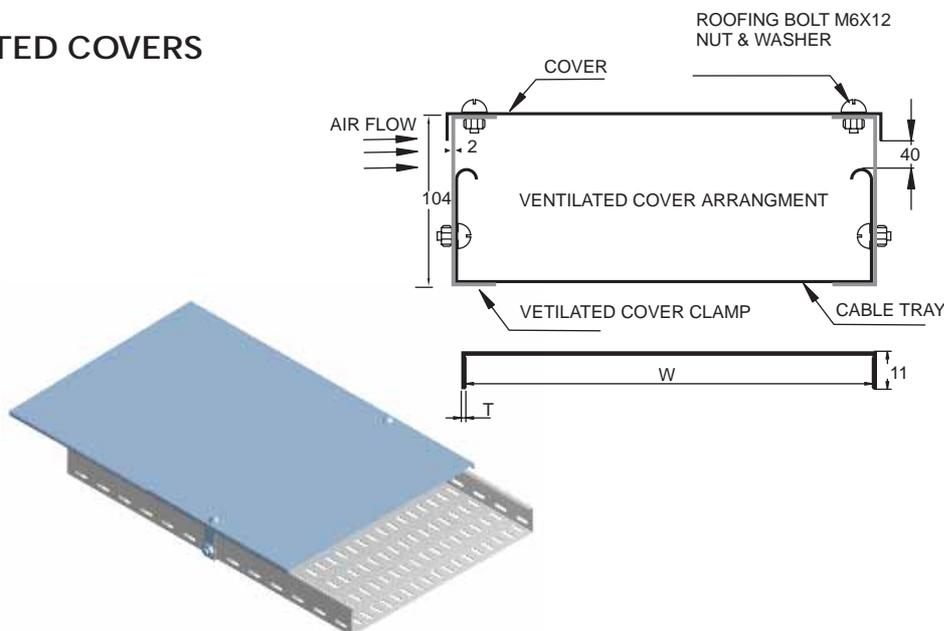


### CLOSED COVER CLAMP

Screw type closed cover clamp HDT/CCC is supplied for closed cover arrangement with the M6 x 12 roofing bolt. HDT/CCC-P is an option and requires no bolts. Clamps to ordered separately.

## CABLE TRAY VENTILATED COVERS

PART REF
HDT / CTVC / 75 / Finish
HDT / CTVC / 100 / Finish
HDT / CTVC / 150 / Finish
HDT / CTVC / 225 / Finish
HDT / CTVC / 300 / Finish
HDT / CTVC / 450 / Finish
HDT / CTVC / 600 / Finish
HDT / CTVC / 750 / Finish
HDT / CTVC / 900 / Finish



### VENTILATED COVER CLAMP

Ventilated cover clamp HDT/VCC is supplied for Ventilated cover arrangement with the set of M6 x 12 roofing bolts, nuts & washers. To be ordered separately

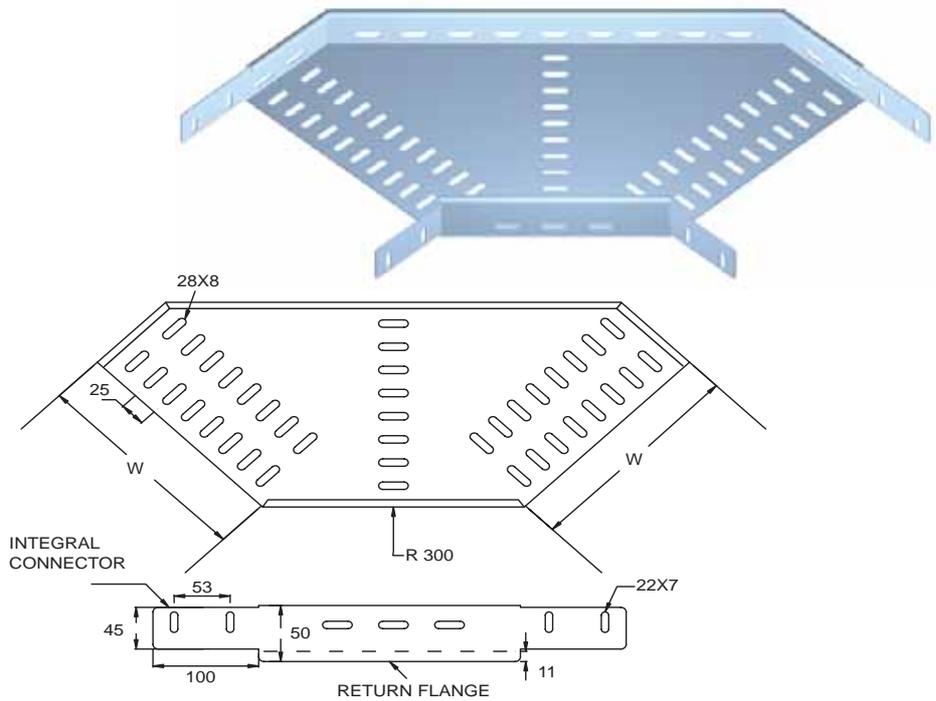
*Note:*

*Covers can be used as closed or ventilated by using an appropriate clamp. Necessary holes are provided on the covers for clamping.*

*Covers can be produced with louvers also on request*

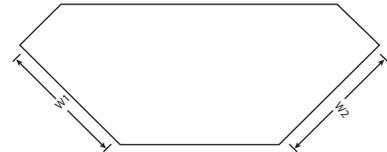
## HDT - ELBOW HORIZONTAL 30° / 45° / 60° / 90°

PART REF
HDT / EH / 75 / A / Finish
HDT / EH / 100 / A / Finish
HDT / EH / 150 / A / Finish
HDT / EH / 225 / A / Finish
HDT / EH / 300 / A / Finish
HDT / EH / 450 / A / Finish
HDT / EH / 600 / A / Finish
HDT / EH / 750 / A / Finish
HDT / EH / 900 / A / Finish



## HDT - UNEQUAL ELBOW - 30° / 45° / 60° / 90°

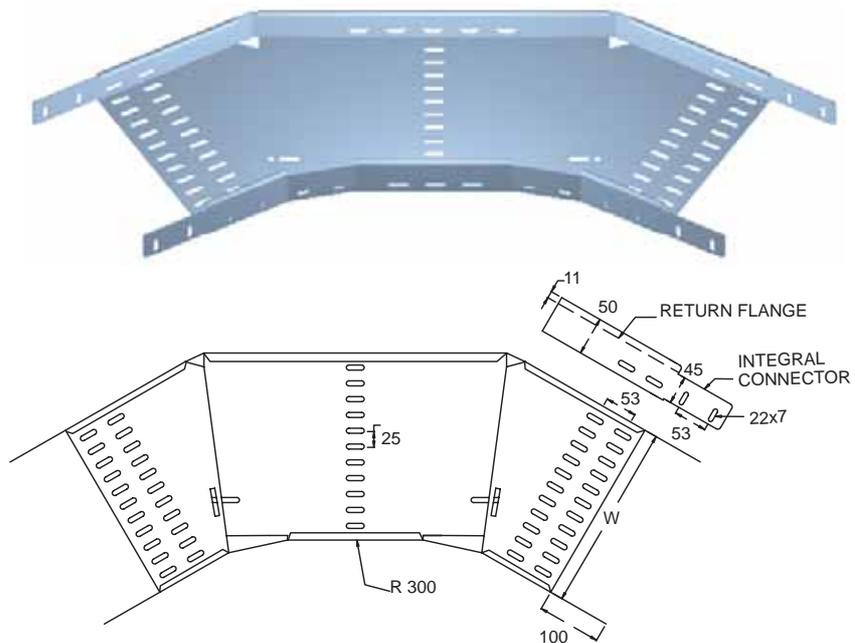
PART REF
HDT / UEH / W1/W2 / A / Finish



For Un Equal elbow specify the widths as W1 & W2 as shown in the fig. Thickness for UEH to be followed of the larger size. For details refer page no. 50

## HDT - ADJUSTABLE ELBOW

PART REF
HDT / AEH / 75 / Finish
HDT / AEH / 100 / Finish
HDT / AEH / 150 / Finish
HDT / AEH / 225 / Finish
HDT / AEH / 300 / Finish
HDT / AEH / 450 / Finish
HDT / AEH / 600 / Finish
HDT / AEH / 750 / Finish
HDT / AEH / 900 / Finish



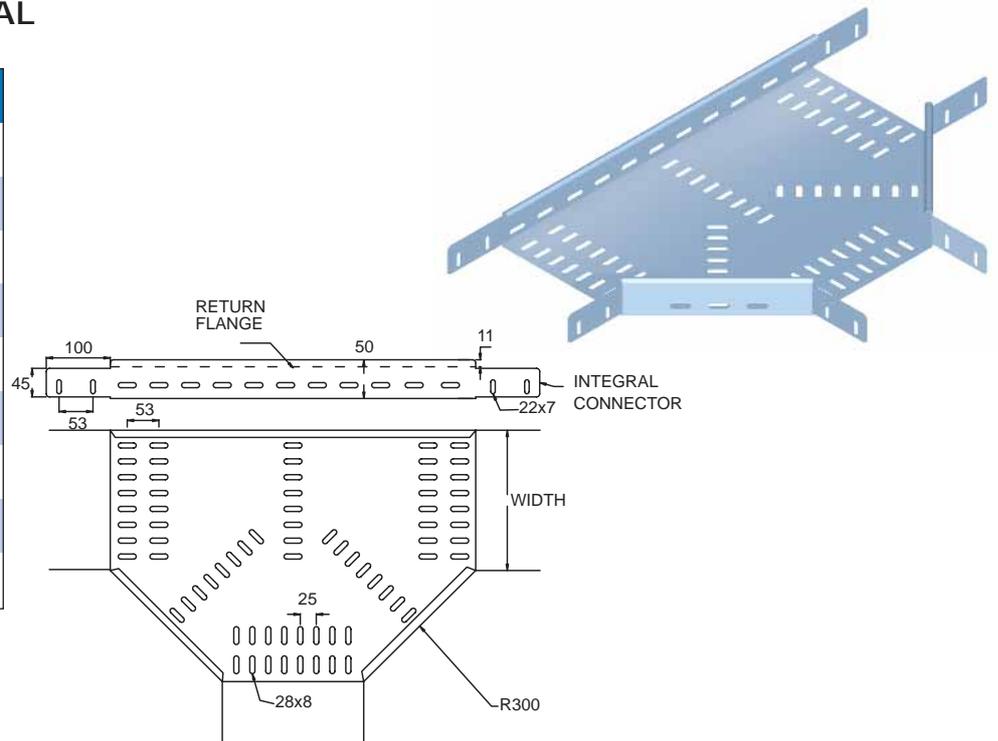
Adjustable elbow can be fixed to any desired angle to suit site requirements.

**Note:** Bonding Jumpers are used for the Earthing Connectivity. For details refer page 84  
For Accessory Cover details refer page 78.

# HEAVY DUTY INSIDE RETURN FLANGE CABLE TRAYS

## HDT - TEE HORIZONTAL

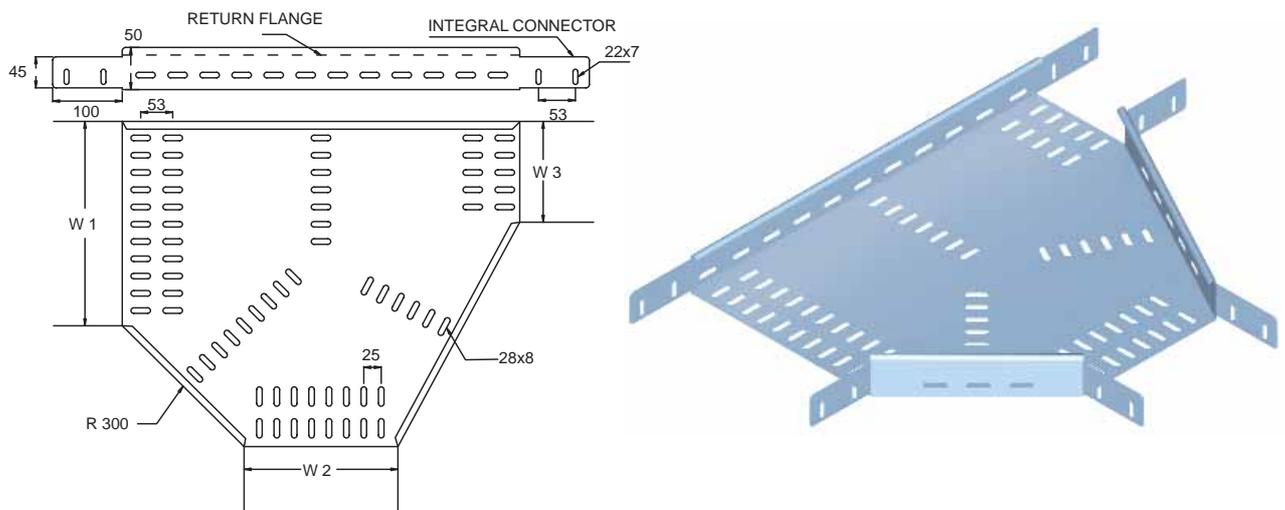
PART REF
HDT / TH / 75 / Finish
HDT / TH / 100 / Finish
HDT / TH / 150 / Finish
HDT / TH / 225 / Finish
HDT / TH / 300 / Finish
HDT / TH / 450 / Finish
HDT / TH / 600 / Finish
HDT / TH / 750 / Finish
HDT / TH / 900 / Finish



- PSI Tray accessories are produced in a single piece and carries no welding. This design gives the component extra strength, rigidity and ease of installation.
- Fish Plates are recommended for the trays & accessories above 200mm widths for better load bearing capacity. For fish plats refer page 84.

## HDT - UN EQUAL TEE

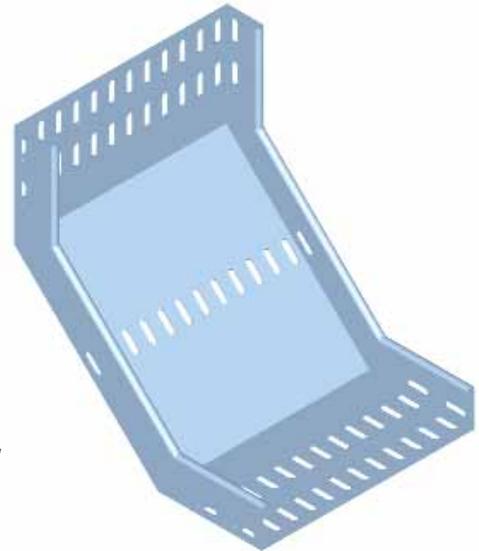
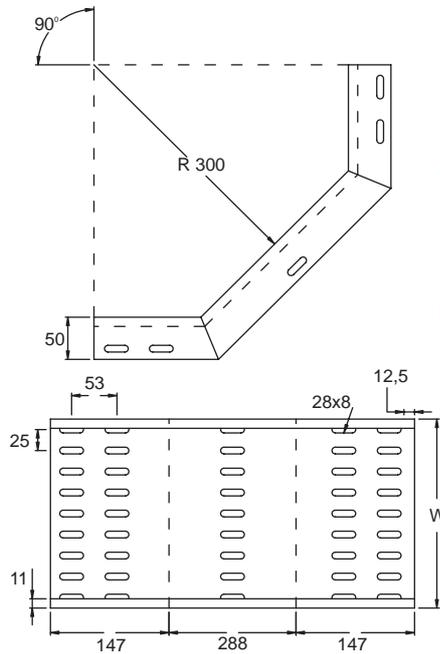
PART REF
HDT / UTH / W1 / W2 / W3 Finish



- Unequal Tee can accomodate trays with different widths at one location.
- For Unequal Tee specify widths W1, W2, W3 anti clockwise as shown in the figure.
- Thickness for Unequal Tee to be followed of the larger size refer page 50
- PSI - Tray accessories are produced with integral connectors. No seperate connectors are required.

## HDT - INTERNAL RISER - 30° / 45° / 60° / 90°

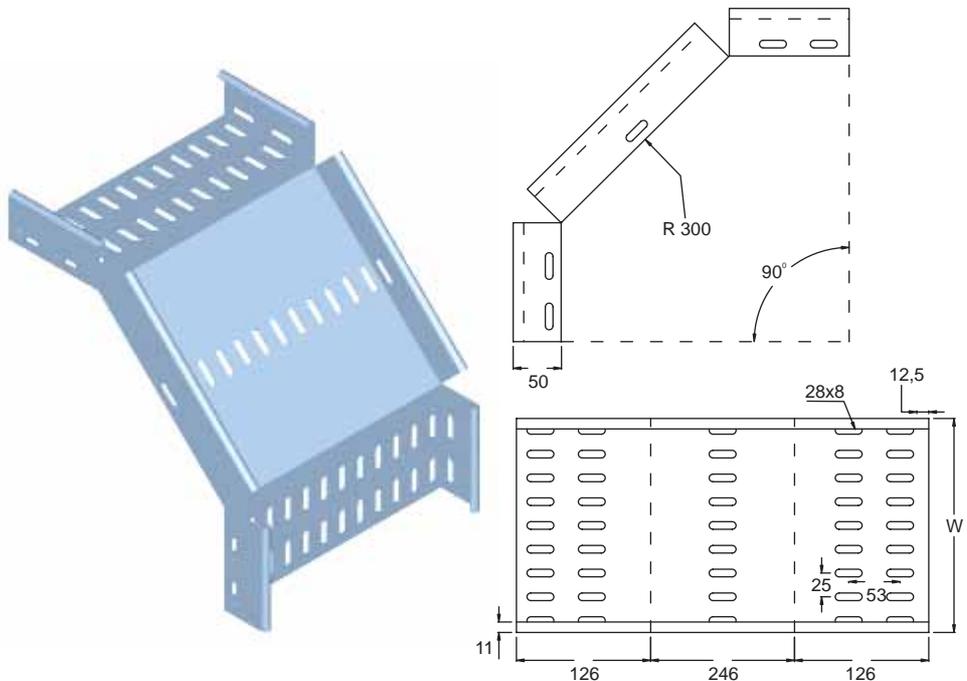
PART REF
HDT / IR / 75 / A / Finish
HDT / IR / 100 / A / Finish
HDT / IR / 150 / A / Finish
HDT / IR / 225 / A / Finish
HDT / IR / 300 / A / Finish
HDT / IR / 450 / A / Finish
HDT / IR / 600 / A / Finish
HDT / IR / 750 / A / Finish
HDT / IR / 900 / A / Finish



Risers are joined to HDT Trays by straight & flange connectors. For details refer page 51

## HDT - EXTERNAL RISER - 30° / 45° / 60° / 90°

PART REF
HDT / ER / 75 / A / Finish
HDT / ER / 100 / A / Finish
HDT / ER / 150 / A / Finish
HDT / ER / 225 / A / Finish
HDT / ER / 300 / A / Finish
HDT / ER / 450 / A / Finish
HDT / ER / 600 / A / Finish
HDT / ER / 750 / A / Finish
HDT / ER / 900 / A / Finish

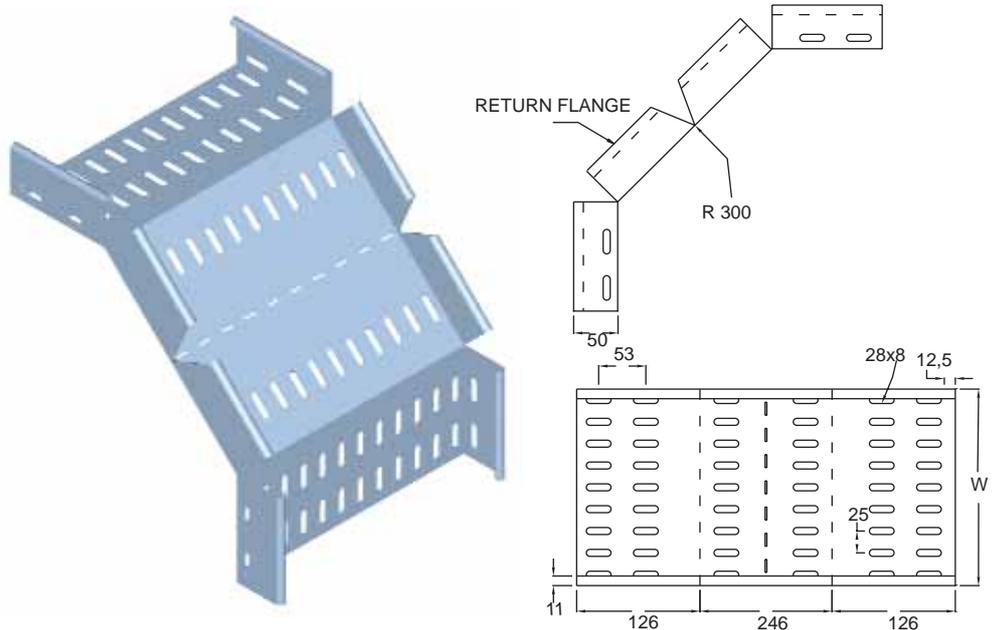


**Note:** Bonding Jumpers are used for the Earthing Connectivity. For details refer page 84  
 For support system for the installation, please refer Metal strut framing system of this manual  
 For Accessory Cover details refer page 78.

# HEAVY DUTY INSIDE RETURN FLANGE CABLE TRAYS

## HDT - ADJUSTABLE RISER

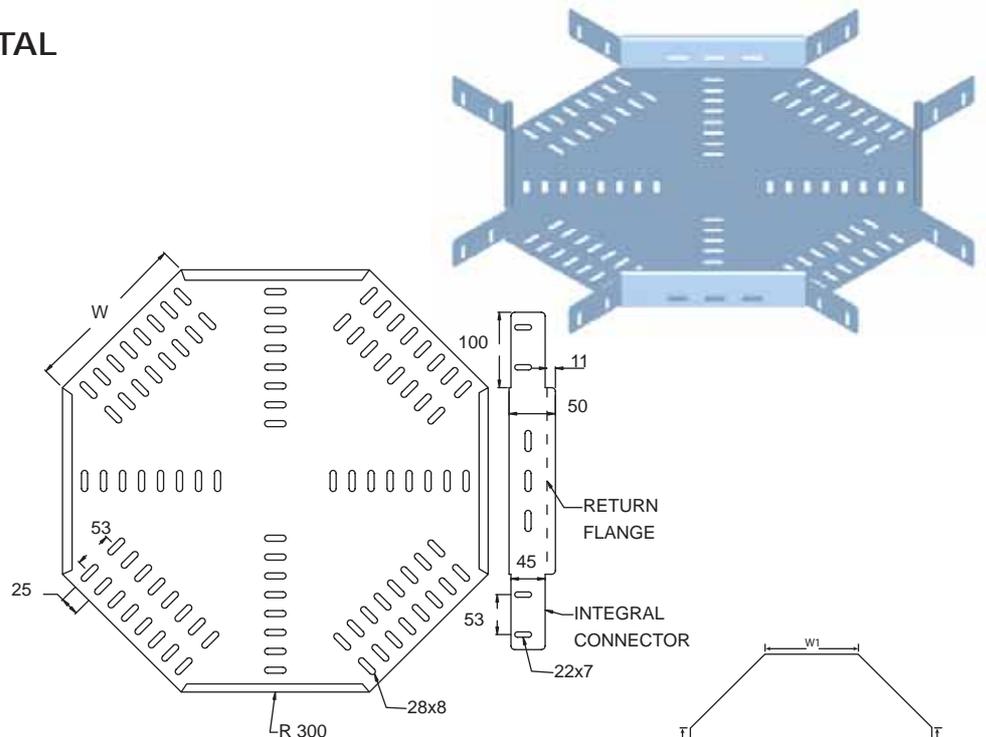
PART REF
HDT / AR / 75 / Finish
HDT / AR / 100 / Finish
HDT / AR / 150 / Finish
HDT / AR / 225 / Finish
HDT / AR / 300 / Finish
HDT / AR / 450 / Finish
HDT / AR / 600 / Finish
HDT / AR / 750 / Finish
HDT / AR / 900 / Finish



Extra long adjustable riser can be produced on request and is specified by HDT / XLAR / WIDTH / FINISH

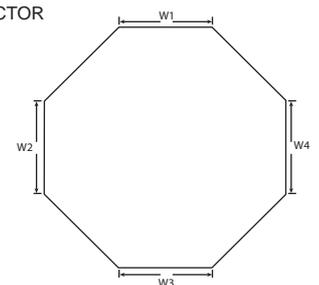
## HDT - CROSS HORIZONTAL

PART REF
HDT / CH / 75 / Finish
HDT / CH / 100 / Finish
HDT / CH / 150 / Finish
HDT / CH / 225 / Finish
HDT / CH / 300 / Finish
HDT / CH / 450 / Finish
HDT / CH / 600 / Finish
HDT / CH / 750 / Finish
HDT / CH / 900 / Finish



## HDT- UNEQUAL CROSS HORIZONTAL

PART REF
HDT / UCH / W1 / W2 / W3 / W4 / Finish

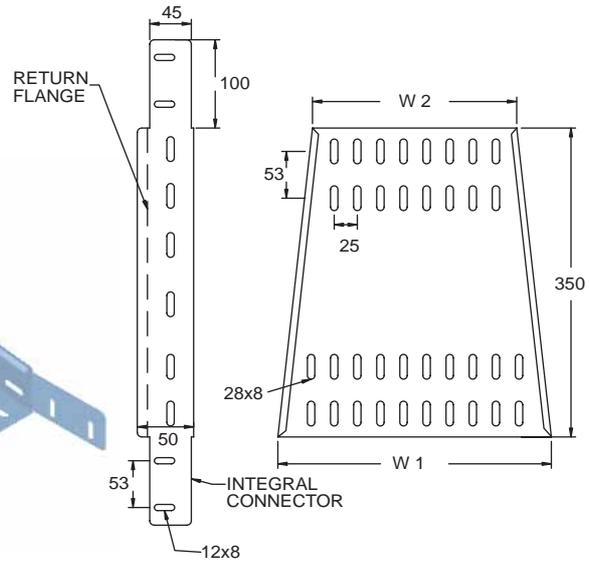
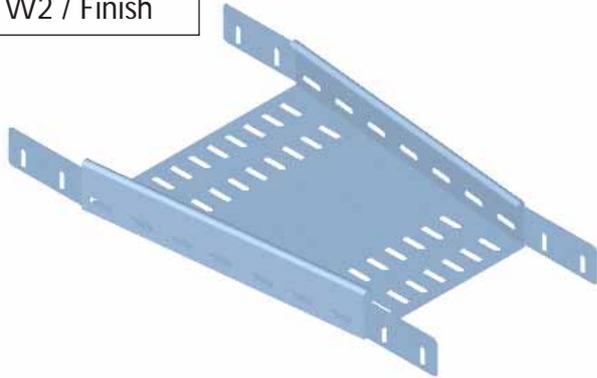


- For Unequal Cross specify the widths as W1,W2,W3,W4 in anti-clockwise direction as shown in the fig.
- Thickness for Unequal Cross to be followed of the larger size. For details refer page no. 50

## HDT - REDUCER STRAIGHT

### PART REF

HDT / RS / W1 / W2 / Finish

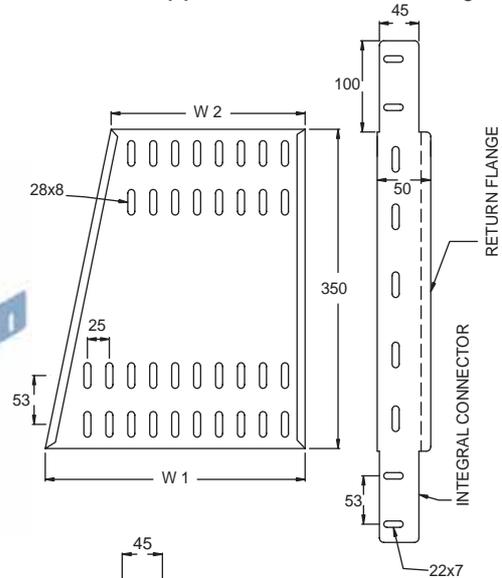
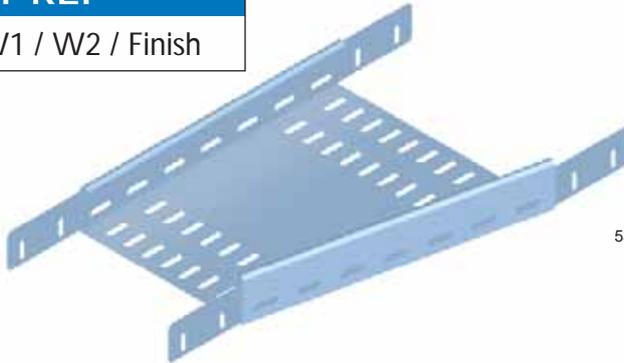


Reducing Connectors can also be used for reduction depending on the site application. For Reducing Connector details refer page 83

## HDT - REDUCER RIGHT

### PART REF

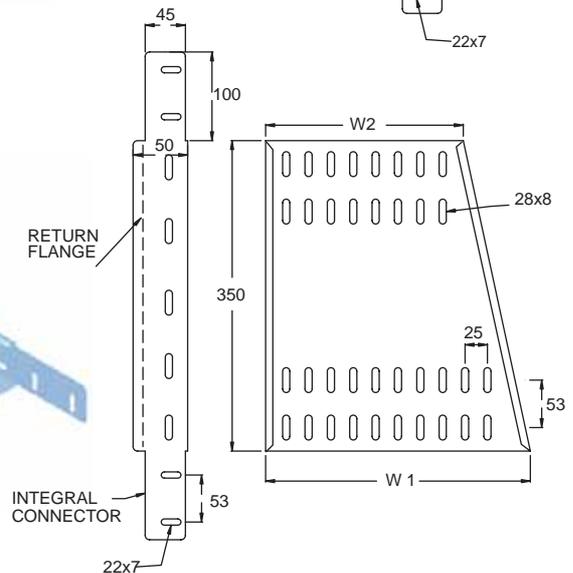
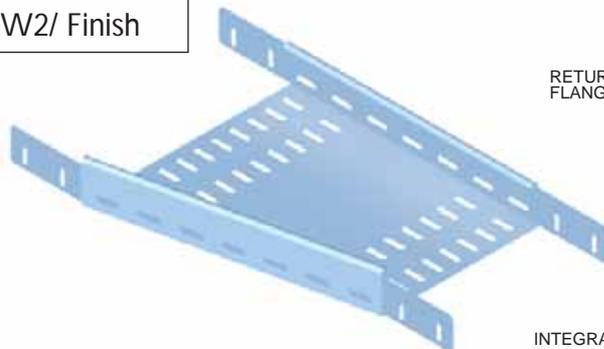
HDT / RR / W1 / W2 / Finish



## HDT - REDUCER LEFT

### PART REF

HDT / RL / W1 / W2 / Finish

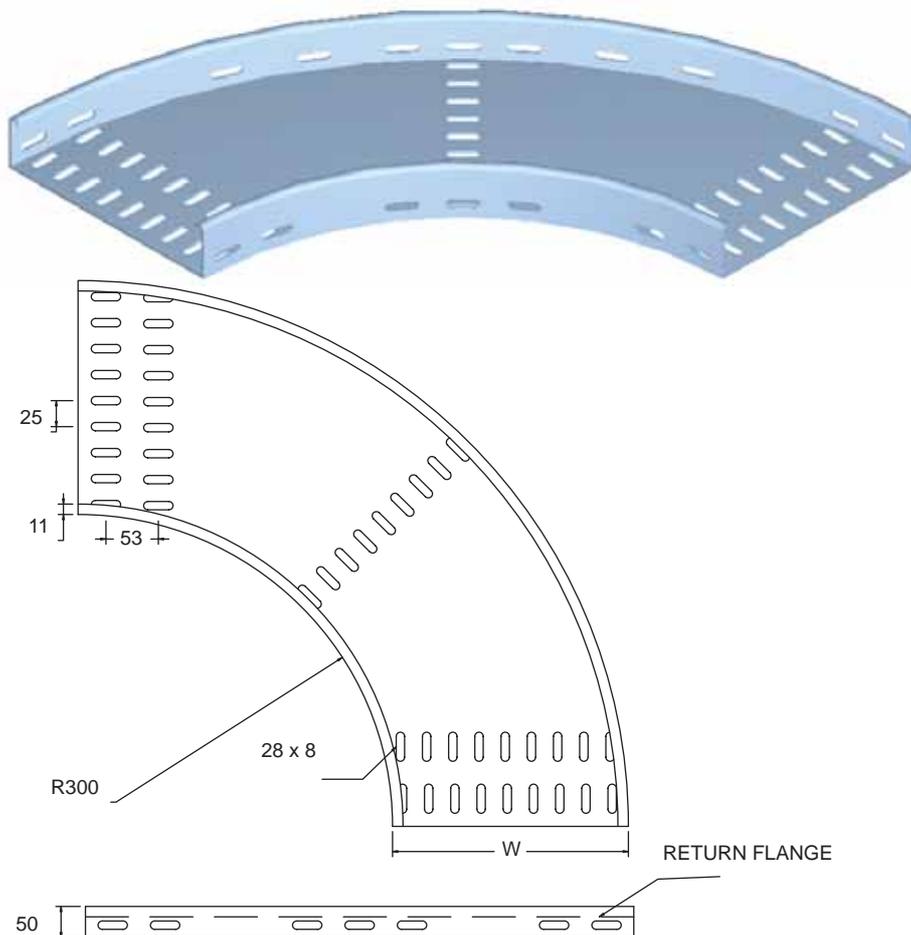


- Thickness for the Reducers to be followed of the larger size. For details refer page no. 50
- Bonding Jumpers are used for the Earthing Connectivity. For details refer page 84
- For Accessory Cover details refer page 78.

# HEAVY DUTY INSIDE RETURN FLANGE CABLE TRAYS ROUND RADIAL ACCESSORIES

## HDT - ELBOW HORIZONTAL 30° / 45° / 60° / 90°

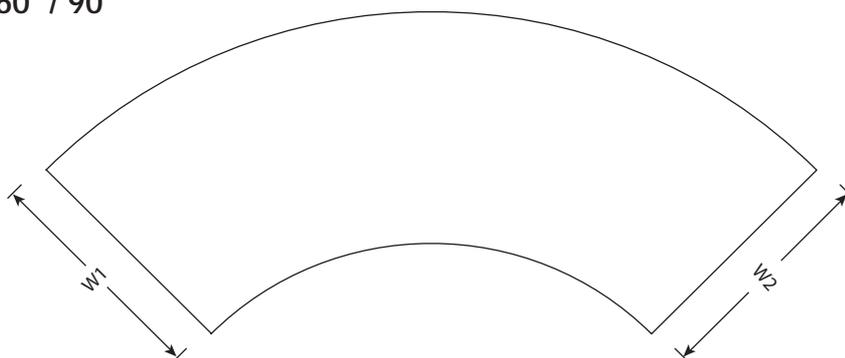
PART REF
HDT / EHR / 75 / A / Finish
HDT / EHR / 100 / A / Finish
HDT / EHR / 150 / A / Finish
HDT / EHR / 225 / A / Finish
HDT / EHR / 300 / A / Finish
HDT / EHR / 450 / A / Finish
HDT / EHR / 600 / A / Finish
HDT / EHR / 750 / A / Finish
HDT / EHR / 900 / A / Finish



- HDT Round Radial Accessories are joined by connectors. For details refer page 51.
- For details of thickness, width and finishes refer page 50.

## HDT - UNEQUAL ELBOW - 30° / 45° / 60° / 90°

PART REF
HDT / UEHR / W1/ W2 / A / Finish

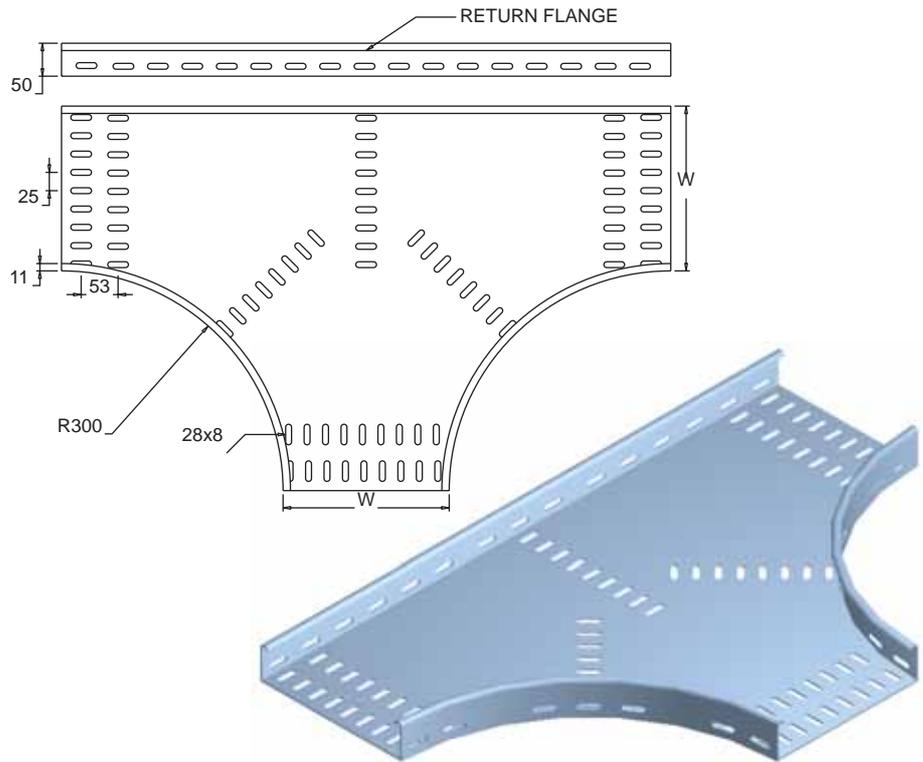


- For Un Equal elbow specify the widths as W1 & W2 as shown in the fig. Thickness for UEHR to be followed of the larger size. For details refer page no. 50

**Note:** Bonding Jumpers are used for the Earthing Connectivity. For details refer page 84.  
Round Radial Accessory Covers can be produced on request. For details refer page 81.

## HDT - TEE HORIZONTAL

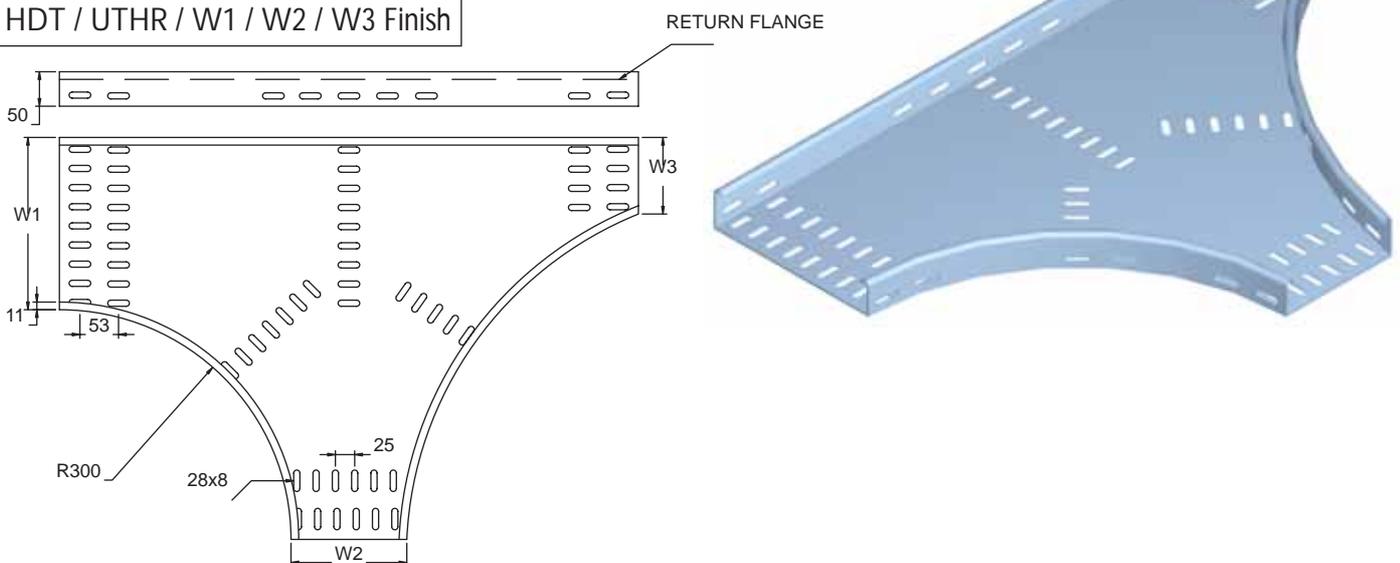
PART REF
HDT / THR / 75 / Finish
HDT / THR / 100 / Finish
HDT / THR / 150 / Finish
HDT / THR / 225 / Finish
HDT / THR / 300 / Finish
HDT / THR / 450 / Finish
HDT / THR / 600 / Finish
HDT / THR / 750 / Finish
HDT / THR / 900 / Finish



- For details on Thickness, Width & Finishes refer page 50.
- Fish Plates are recommended for the trays & accessories above 200mm widths for better load bearing capacity. For fish plates refer page 84.

## HDT - UN EQUAL TEE

PART REF
HDT / UTHR / W1 / W2 / W3 Finish

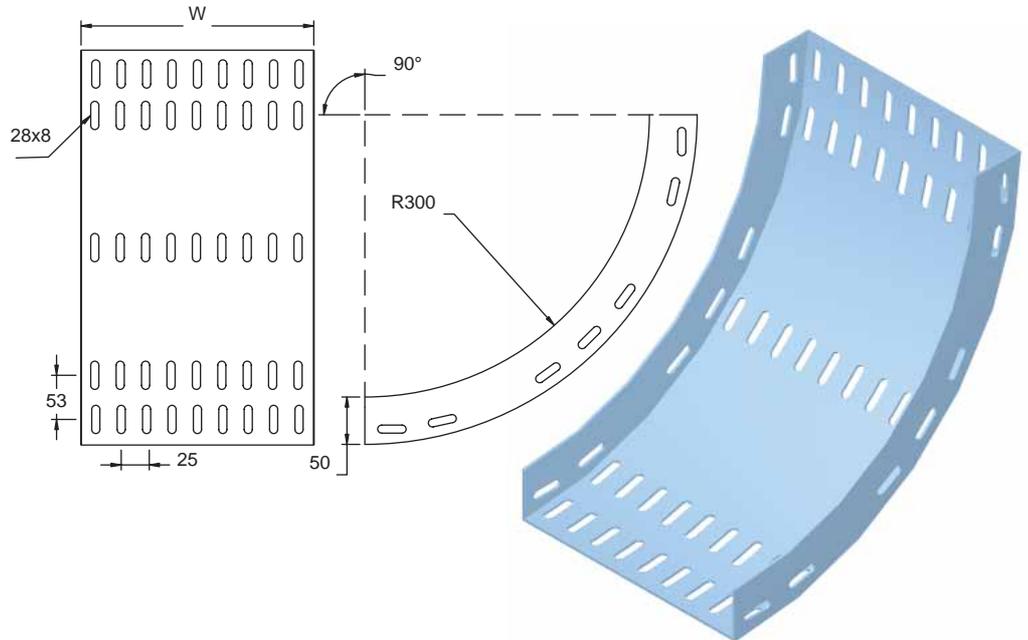


- Unequal Tee can accommodate trays with different widths at one location.
- For Unequal Tee specify widths W1, W2, W3 anti clockwise as shown in the figure.
- Thickness for Unequal Tee to be followed of the larger size refer page 50.
- HDT Round Radial Accessories are joined by connectors. For details refer page 51.

# HEAVY DUTY INSIDE RETURN FLANGE CABLE TRAYS ROUND RADIAL ACCESSORIES

## HDT - INTERNAL RISER - 30° / 45° / 60° / 90°

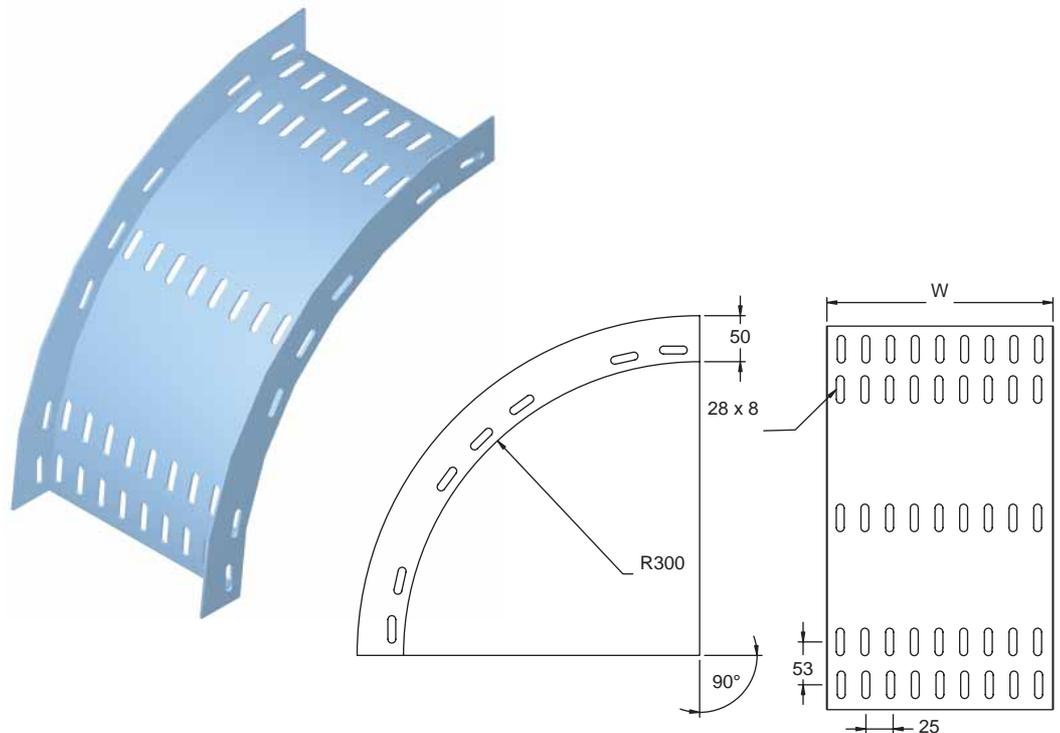
PART REF
HDT / IRR / 75 / A / Finish
HDT / IRR / 100 / A / Finish
HDT / IRR / 150 / A / Finish
HDT / IRR / 225 / A / Finish
HDT / IRR / 300 / A / Finish
HDT / IRR / 450 / A / Finish
HDT / IRR / 600 / A / Finish
HDT / IRR / 750 / A / Finish
HDT / IRR / 900 / A / Finish



Risers are joined to HDT Trays by straight connectors. For details refer page 51.  
Adjustable risers are produced on request and are specified by HDT / AR / Width / Finish. For details refer page 56.  
Extra long Adjustable Risers are produced on request and are specified by HDT / XLAR / Width / Finish.

## HDT - EXTERNAL RISER - 30° / 45° / 60° / 90°

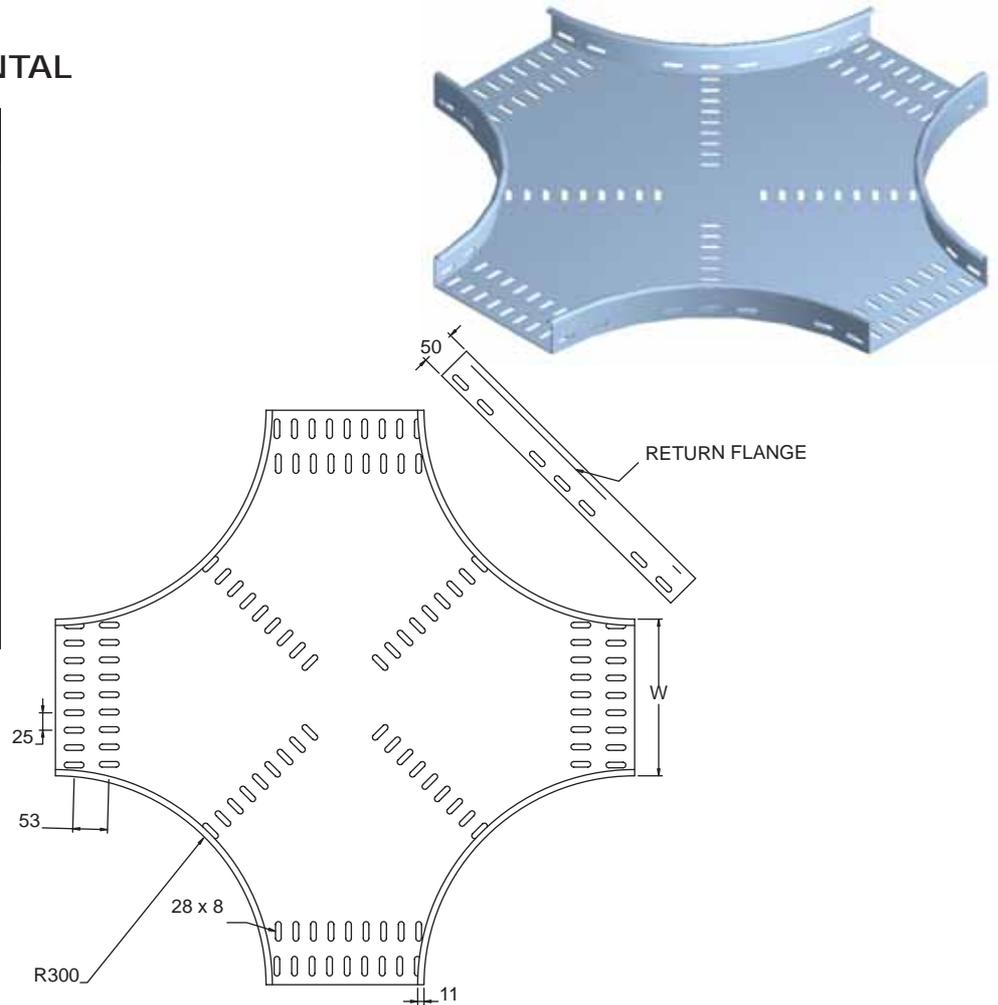
PART REF
HDT / ERR / 75 / A / Finish
HDT / ERR / 100 / A / Finish
HDT / ERR / 150 / A / Finish
HDT / ERR / 225 / A / Finish
HDT / ERR / 300 / A / Finish
HDT / ERR / 450 / A / Finish
HDT / ERR / 600 / A / Finish
HDT / ERR / 750 / A / Finish
HDT / ERR / 900 / A / Finish



**Note:** Bonding Jumpers are used for the Earthing Connectivity. For details refer page 84.  
For support system for the installation, please refer Metal strut framing system of this manual.  
Round Radial accessory cover can be produced on request. For details refer page 81.

## HDT - CROSS HORIZONTAL

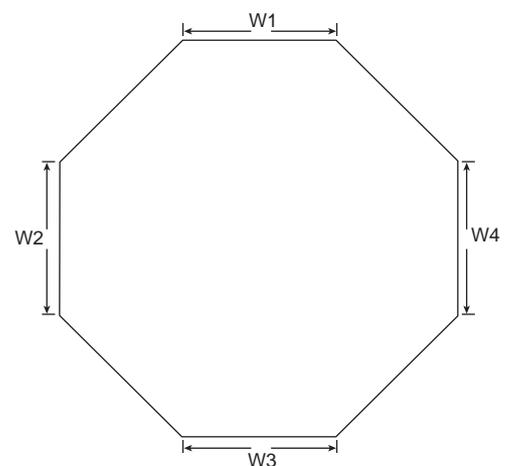
PART REF
HDT / CHR / 75 / Finish
HDT / CHR / 100 / Finish
HDT / CHR / 150 / Finish
HDT / CHR / 225 / Finish
HDT / CHR / 300 / Finish
HDT / CHR / 450 / Finish
HDT / CHR / 600 / Finish
HDT / CHR / 750 / Finish
HDT / CHR / 900 / Finish



- HDT Round Radial accessories are joined by connectors. For details refer page 51.
- Round Radial Accessory Covers can be produced on request. For details refer page 81.

## HDT- UNEQUAL CROSS HORIZONTAL

PART REF
HDT / UCHR / W1 / W2 / W3 / W4 / Finish



- For Unequal Cross specify the widths as W1,W2,W3,W4 in anti-clockwise direction as shown in the fig.
- Thickness for Unequal Cross to be followed of the larger size. For details refer page no. 50
- For HDT reducer details, refer page 57.

# HEAVY DUTY INSIDE RETURN FLANGE CABLE TRAY

## WEIGHT OF THE COMPONENTS

### HDT-CABLE TRAY

WIDTH(mm)	WT. (Kgs.)
75	4.420
100	4.950
150	6.010
225	9.095
300	10.992
450	18.508
600	23.225
750	37.323
900	43.598

### STRAIGHT CONNECTOR

WIDTH(mm)	WT. (Kgs.)
75 to 300	0.160
450 to 900	0.213

### FLANGE CONNECTOR

WIDTH(mm)	WT. (Kgs.)
75 to 300	0.229
450 to 900	0.305

### COVERS FOR STRAIGHT LENGTHS

WIDTH(mm)	WT. (Kgs.)
75	2.735
100	3.233
150	4.484
225	6.371
300	8.226
450	14.363
600	18.847
750	29.055
900	34.673

### HDT - ELBOW HORIZONTAL

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
75	0.329	0.615
100	0.392	0.710
150	0.445	0.922
225	0.795	1.548
300	1.081	2.099
450	2.215	4.335
600	3.286	6.455
750	6.477	12.890
900	8.204	16.335

### HDT - EXTERNAL RISER

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
75	0.382	0.763
100	0.413	0.859
150	0.498	1.049
225	0.774	1.601
300	0.806	1.940
450	1.643	3.286
600	2.078	4.145
750	3.328	6.657
900	3.901	7.802

### HDT - INTERNAL RISER

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
75	0.412	0.848
100	0.468	0.965
150	0.607	1.187
225	0.938	1.834
300	1.210	2.237
450	1.677	3.816
600	2.450	4.823
750	3.891	7.780
900	4.601	9.137

### HDT - CROSS HORIZONTAL

WIDTH(mm)	WT. (Kgs.)
75	1.823
100	1.950
150	2.205
225	3.371
300	4.219
450	7.770
600	10.876
750	19.451
900	25.111

### HDT - TEE HORIZONTAL

WIDTH(mm)	WT. (Kgs.)
75	1.304
100	1.420
150	1.685
225	2.692
300	3.477
450	6.678
600	9.604
750	17.617
900	22.737

Note: For Accessories Cover, refer page no 78

## EXTRA HEAVY DUTY INSIDE RETURN FLANGE CABLE TRAYS

### FOR STRAIGHT LENGTHS AND ACCESSORIES

Range / Width (W)	Thickness (T)	Side Height (H)
All dimensions are in mm		
100 to 300	1.5	75
450 to 900	2.0	75

### STANDARD FINISHES

HDG	Hot dip Galvanized to BS EN ISO 1461:1999 (Formerly BS 729)
PG	Pre-galvanized to BS EN 10142 & 10143
PC	Powder Coating to suit clients requirements
SS	Stainless steel finish to required grades

- Extra Heavy duty inside return flange cable trays are produced in a standard length of 3 mtrs but can be produced in different lengths on request.
- Extra Heavy duty inside return flange cable tray accessories are produced to standard radius of 300 mm but can be produced in 450 mm, 600mm and 900 mm as required.
- Accessory cover and clamp details have been provided at the end of cable tray chapter.

### COVERS FOR STRAIGHT LENGTHS AND ACCESSORIES

Range / Width (W)	Thickness (T)	Side Height (H)
All dimensions are in mm		
100 to 300	1.0	11
450 to 600	1.2	11
750 to 900	1.5	11

### ORDER PATTERN

To select the required component, please specify the type, component, width, finish. Angles can be mentioned wherever necessary.

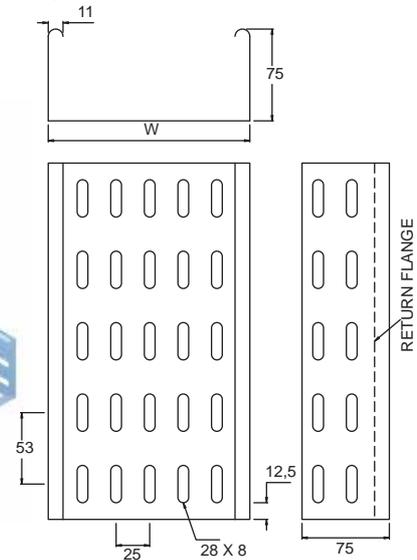
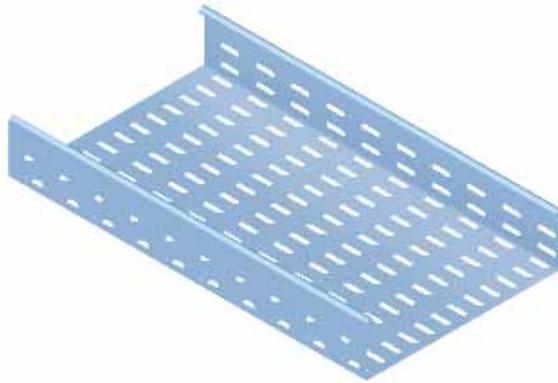
#### EXAMPLE:

TYPE / COMPONENT / WIDTH / FINISH (without angle)      XDT / COM / WIDTH / HDG  
 TYPE / COMPONENT / WIDTH / ANGLE / FINISH (with angle)      XDT / COM / WIDTH / A / HDG

**Note:** For special finishes consult our sales team, factory  
 For special sizes, gauges, flanges, consult our sales team, factory

**EXTRA HEAVY DUTY INSIDE RETURN FLANGE TRAY - (XDT)**

PART REF
XDT / CT / 100 / Finish
XDT / CT / 150 / Finish
XDT / CT / 225 / Finish
XDT / CT / 300 / Finish
XDT / CT / 450 / Finish
XDT / CT / 600 / Finish
XDT / CT / 750 / Finish
XDT / CT / 900 / Finish



XDT Cable Trays are produced with inside return flange for extra heavy duty applications.

**CONNECTORS**

XDT CableTrays are joined together by straight & flange connectors. Connectors are supplied in pairs with a set of M6 x 12 roofing bolts, nuts and washers. Load graphs provided in the manual are based on XDT/SC. To be ordered separately.

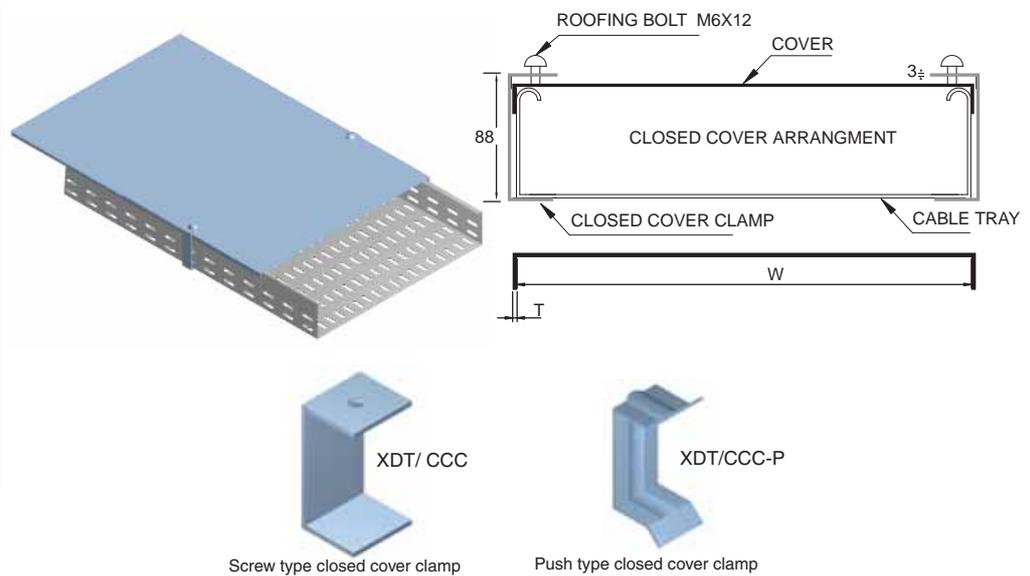
STRAIGHT CONNECTOR	FLANGE CONNECTOR												
<table border="1" style="margin: 0 auto;"> <tr> <th style="background-color: #0056b3; color: white;">PART REF</th> </tr> <tr> <td>XDT / SC / Width / Finish</td> </tr> </table>	PART REF	XDT / SC / Width / Finish	<table border="1" style="margin: 0 auto;"> <tr> <th style="background-color: #0056b3; color: white;">PART REF</th> </tr> <tr> <td>XDT / FC / Width / Finish</td> </tr> </table>	PART REF	XDT / FC / Width / Finish								
PART REF													
XDT / SC / Width / Finish													
PART REF													
XDT / FC / Width / Finish													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #0056b3; color: white;">Width (mm)</th> <th style="background-color: #0056b3; color: white;">Thickness (mm)</th> </tr> </thead> <tbody> <tr> <td>100 to 300</td> <td>1.5</td> </tr> <tr> <td>450 to 900</td> <td>2.0</td> </tr> </tbody> </table>	Width (mm)	Thickness (mm)	100 to 300	1.5	450 to 900	2.0	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #0056b3; color: white;">Width (mm)</th> <th style="background-color: #0056b3; color: white;">Thickness (mm)</th> </tr> </thead> <tbody> <tr> <td>100 to 300</td> <td>1.5</td> </tr> <tr> <td>450 to 900</td> <td>2.0</td> </tr> </tbody> </table>	Width (mm)	Thickness (mm)	100 to 300	1.5	450 to 900	2.0
Width (mm)	Thickness (mm)												
100 to 300	1.5												
450 to 900	2.0												
Width (mm)	Thickness (mm)												
100 to 300	1.5												
450 to 900	2.0												

- Flange connectors are provided for extra strength. Flange connectors wrap up the trays from outside and increases the load bearing capacity of the tray.
- Select an appropriate connector to suit your requirements.

## EXTRA HEAVY DUTY INSIDE RETURN FLANGE CABLE TRAYS

### CABLE TRAY CLOSED COVERS

PART REF
XDT / CTCC / 100 / Finish
XDT / CTCC / 150 / Finish
XDT / CTCC / 225 / Finish
XDT / CTCC / 300 / Finish
XDT / CTCC / 450 / Finish
XDT / CTCC / 600 / Finish
XDT / CTCC / 750 / Finish
XDT / CTCC / 900 / Finish

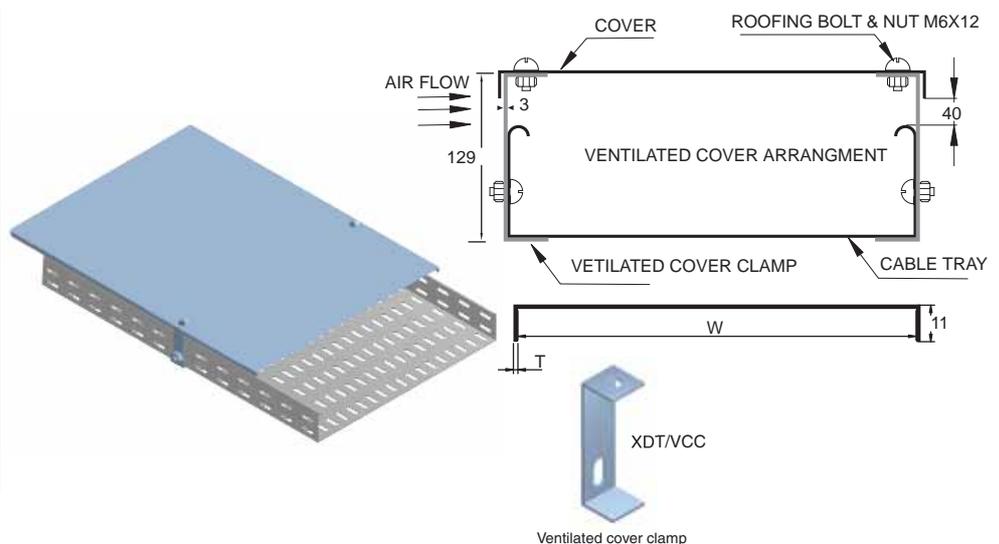


#### CLOSED COVER CLAMP

Screw type closed cover clamp XDT/CCC is supplied for closed cover arrangement with the set of M6 x 12 roofing bolt. XDT/CCC-P is a push type option and requires no bolts. To be ordered separately.

### CABLE TRAY VENTILATED COVERS

PART REF
XDT / CTVC / 100 / Finish
XDT / CTVC / 150 / Finish
XDT / CTVC / 225 / Finish
XDT / CTVC / 300 / Finish
XDT / CTVC / 450 / Finish
XDT / CTVC / 600 / Finish
XDT / CTVC / 750 / Finish
XDT / CTVC / 900 / Finish



#### VENTILATED COVER CLAMP

Ventilated cover clamp XDT/VCC is supplied for Ventilated cover arrangement with the set of M6 x 12 roofing bolts, nuts & washers. To be order separately.

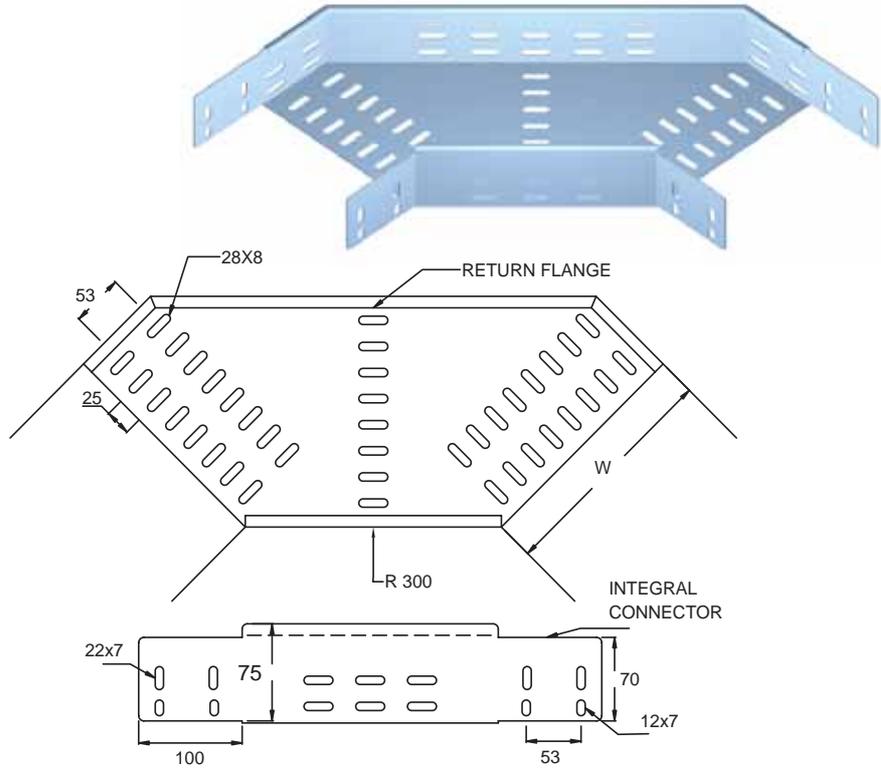
- Covers can be used as closed or ventilated by using an appropriate clamp. Necessary holes are provided on the covers for clamping.
- Covers can be produced with louvers also on request.



# EXTRA HEAVY DUTY INSIDE RETURN FLANGE CABLE TRAYS

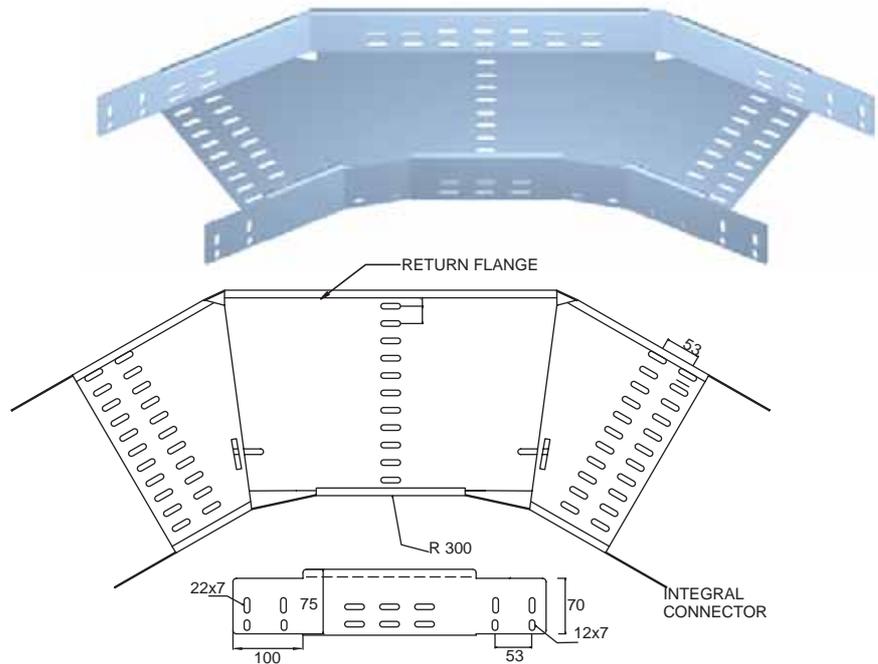
## XDT - ELBOW HORIZONTAL 30° / 45° / 60° / 90°

PART REF
XDT / EH / 100 / A / Finish
XDT / EH / 150 / A / Finish
XDT / EH / 225 / A / Finish
XDT / EH / 300 / A / Finish
XDT / EH / 450 / A / Finish
XDT / EH / 600 / A / Finish
XDT / EH / 750 / A / Finish
XDT / EH / 900 / A / Finish



## XDT - ADJUSTABLE ELBOW

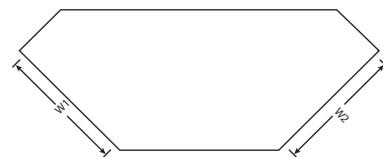
PART REF
XDT / AEH / 100 / Finish
XDT / AEH / 150 / Finish
XDT / AEH / 225 / Finish
XDT / AEH / 300 / Finish
XDT / AEH / 450 / Finish
XDT / AEH / 600 / Finish
XDT / AEH / 750 / Finish
XDT / AEH / 900 / Finish



- Adjustable Elbow can be fixed to any desired angle depending on the site conditions.

## XDT - UNEQUAL ELBOW - 30° / 45° / 60° / 90°

PART REF
XDT / UEH / W1 / W2 / A / Finish

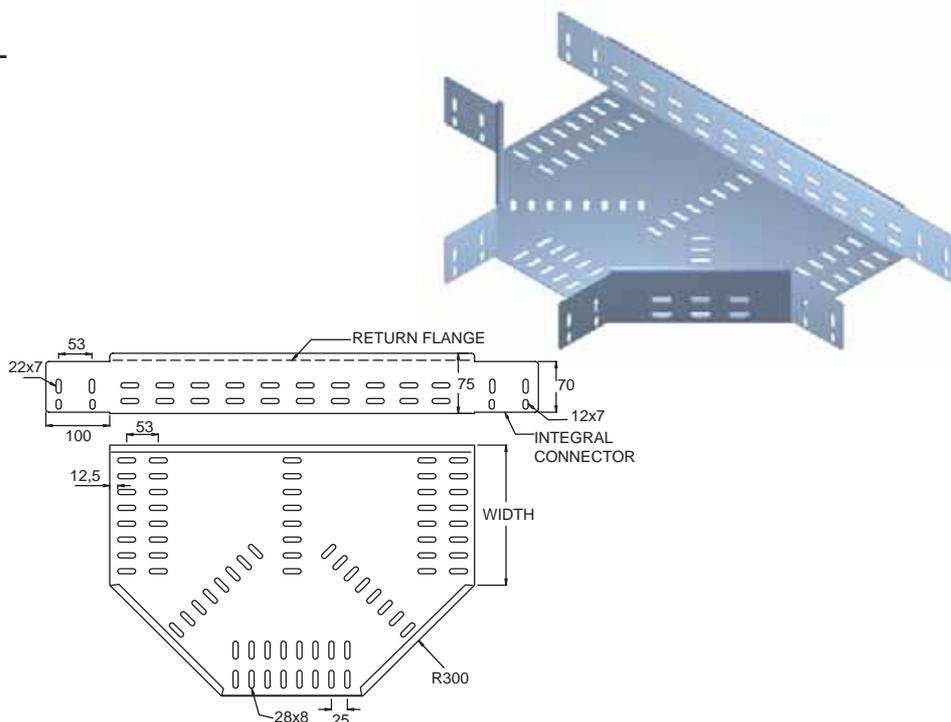


- For Unequal Elbow specify the widths as W1 & W2 as shown in the fig.
- Thickness for UEH to be followed of the larger size. For details refer page no. 64

## EXTRA HEAVY DUTY INSIDE RETURN FLANGE CABLE TRAYS

### XDT - TEE HORIZONTAL

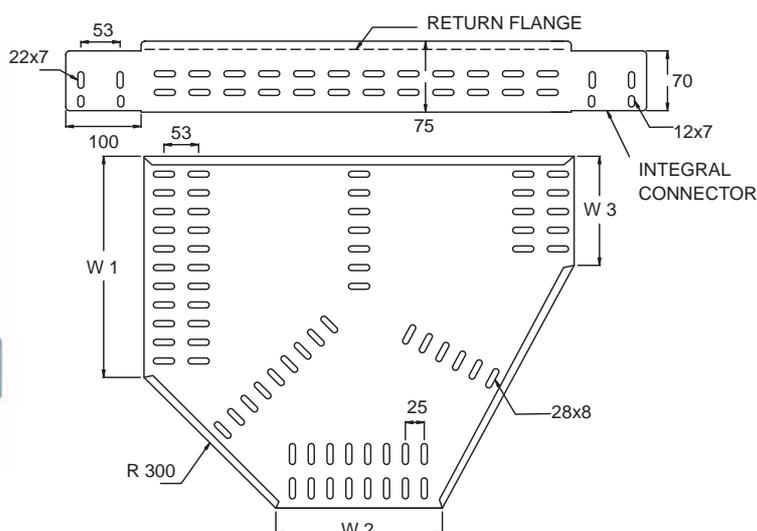
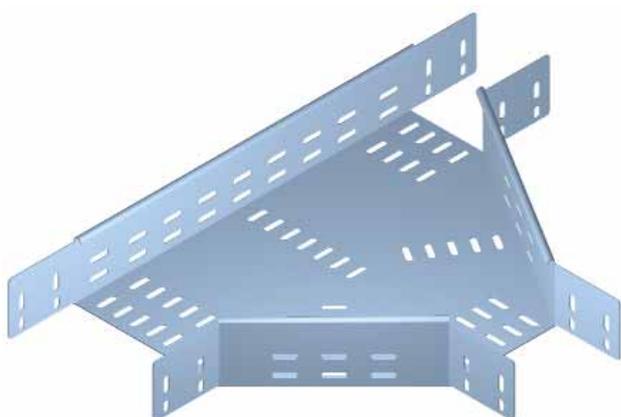
PART REF
XDT / TH / 100 / Finish
XDT / TH / 150 / Finish
XDT / TH / 225 / Finish
XDT / TH / 300 / Finish
XDT / TH / 450 / Finish
XDT / TH / 600 / Finish
XDT / TH / 750 / Finish
XDT / TH / 900 / Finish



- PSI Tray accessories are produced in a single piece and carries no welding. This design gives the component extra strength, rigidity and ease of installation.
- For support system for the installation, please refer Metal strut framing system of this manual.
- PSI - Tray accessories are produced with integral connectors. No separate connectors are required.

### XDT - UN EQUAL TEE

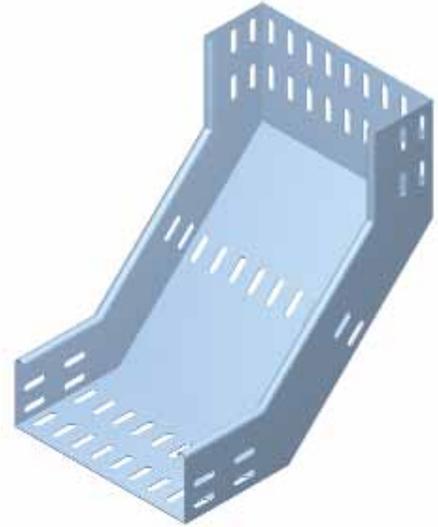
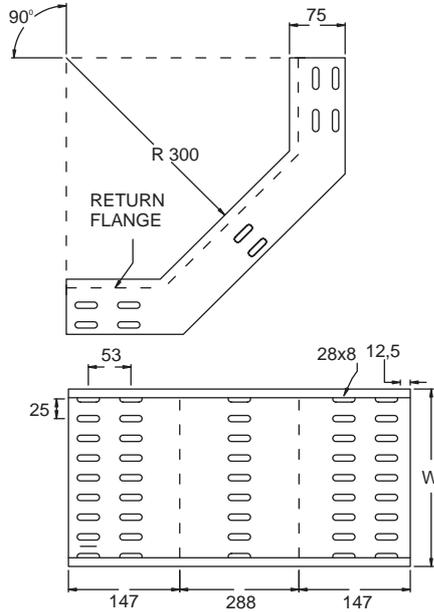
PART REF
XDT / UTH / W1 / W2 / W3 Finish



- For Unequal Tee specify widths W1, W2, W3 anti clockwise.
- Thickness for Unequal Tee to be followed of the larger size refer page 64.
- Unequal Tee can accommodate trays with different widths at one location.

**XDT - INTERNAL RISER - 30° / 45° / 60° / 90°**

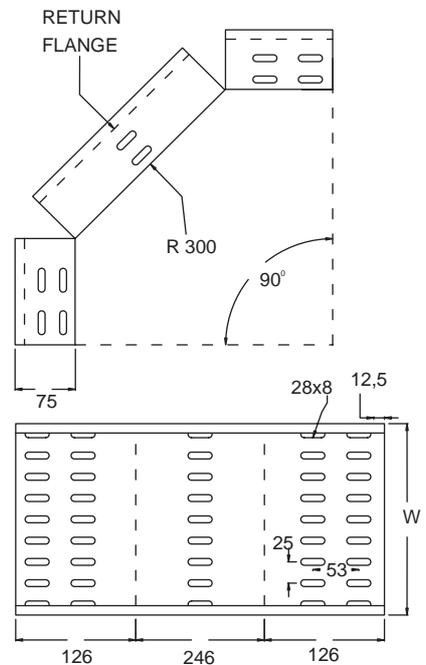
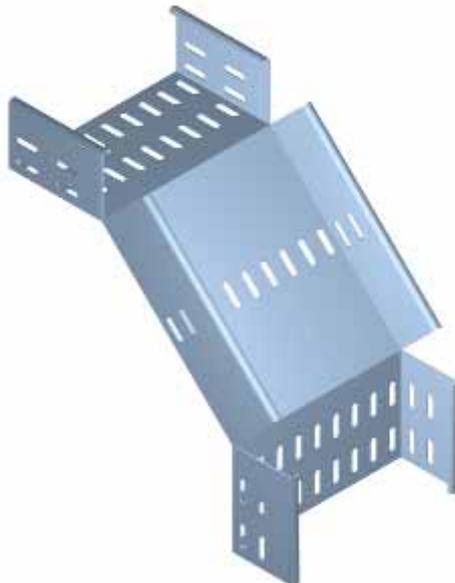
PART REF
XDT / IR / 100 / A / Finish
XDT / IR / 150 / A / Finish
XDT / IR / 225 / A / Finish
XDT / IR / 300 / A / Finish
XDT / IR / 450 / A / Finish
XDT / IR / 600 / A / Finish
XDT / IR / 750 / A / Finish
XDT / IR / 900 / A / Finish



- Bonding Jumpers are used for the Earthing Connectivity. For details refer page 84.
- For special gauges, sizes or design, consult our sales team or factory.

**XDT - EXTERNAL RISER - 30° / 45° / 60° / 90°**

PART REF
XDT / ER / 100 / A / Finish
XDT / ER / 150 / A / Finish
XDT / ER / 225 / A / Finish
XDT / ER / 300 / A / Finish
XDT / ER / 450 / A / Finish
XDT / ER / 600 / A / Finish
XDT / ER / 750 / A / Finish
XDT / ER / 900 / A / Finish

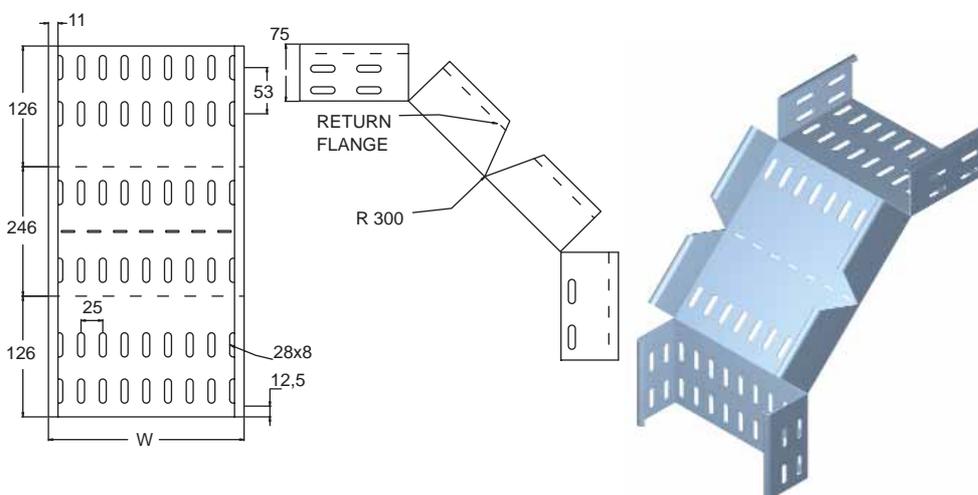


- Risers are joined to XDT Trays by straight & flange connectors. For details refer page 65.
- Fish Plates are recommended for the trays & accessories above 200mm widths for better load bearing capacity.
- PSI Tray accessories are produced in a single piece and carries no welding. This design gives the component extra strength, rigidity and ease of installation.

## EXTRA HEAVY DUTY INSIDE RETURN FLANGE CABLE TRAYS

### XDT - ADJUSTABLE RISER

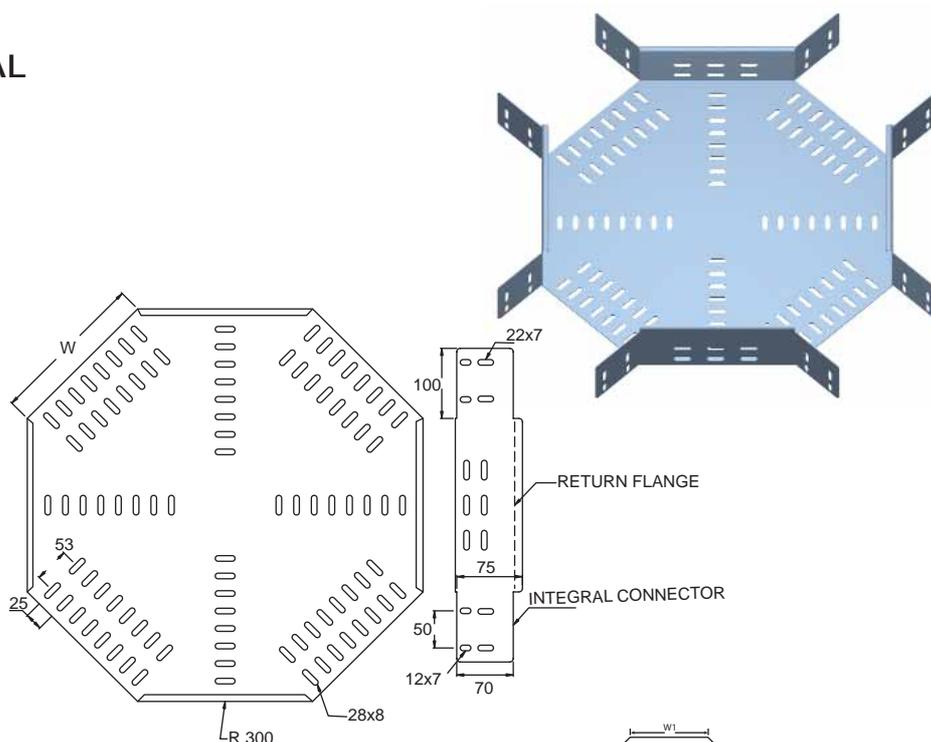
PART REF
XDT / AR / 100 / Finish
XDT / AR / 150 / Finish
XDT / AR / 225 / Finish
XDT / AR / 300 / Finish
XDT / AR / 450 / Finish
XDT / AR / 600 / Finish
XDT / AR / 750 / Finish
XDT / AR / 900 / Finish



Extra long adjustable riser can be produced on request and is specified by XDT / XLAR / WIDTH / FINISH

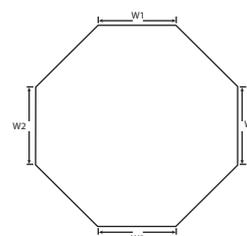
### XDT - CROSS HORIZONTAL

PART REF
XDT / CH / 100 / Finish
XDT / CH / 150 / Finish
XDT / CH / 225 / Finish
XDT / CH / 300 / Finish
XDT / CH / 450 / Finish
XDT / CH / 600 / Finish
XDT / CH / 750 / Finish
XDT / CH / 900 / Finish



### XDT - UNEQUAL CROSS HORIZONTAL

PART REF
XDT / UCH / W1 / W2 / W3 / W4 / Finish

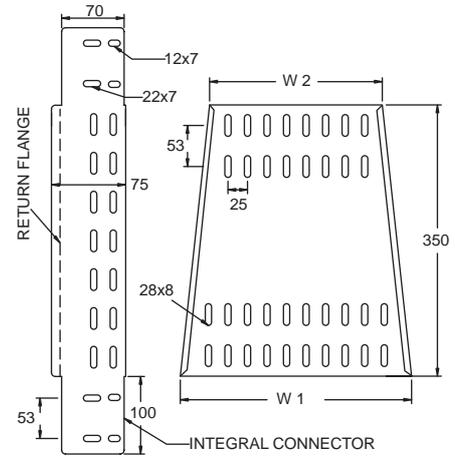
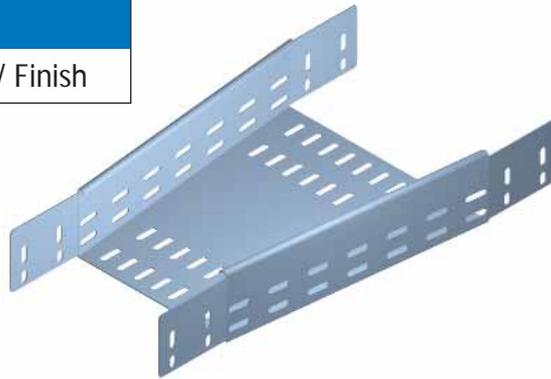


- For Unequal Cross specify the widths as W1,W2,W3,W4 in anti-clockwise direction as shown in the fig.
- Thickness for UCH to be followed of the larger size. For details refer page 64.
- Bonding Jumpers are used for the Earthing Connectivity. For details refer page 84.

**Note:** For Accessory Cover details refer page 78.

**XDT - REDUCER STRAIGHT**

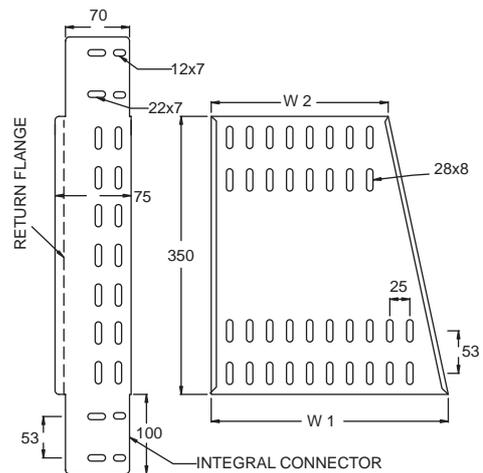
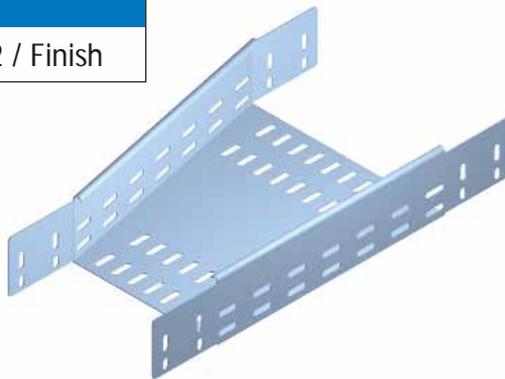
PART REF
XDT / RS / W1 / W2 / Finish



Reducing Connectors can also be used for reduction, depending on the site application. For Reducing Connector details refer page 83.

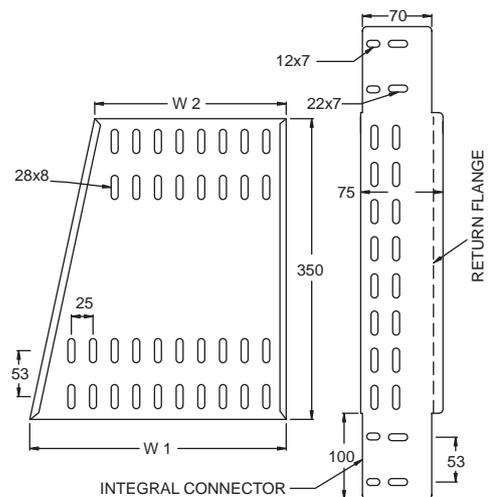
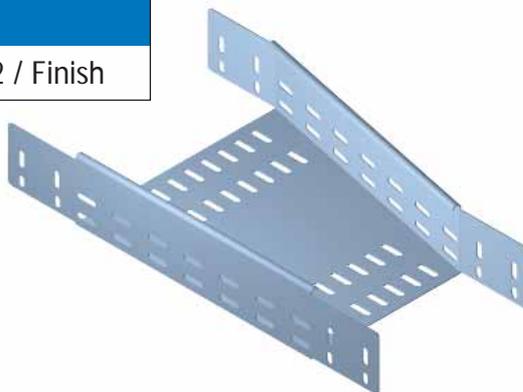
**XDT - REDUCER RIGHT**

PART REF
XDT / RR / W1 / W2 / Finish



**XDT - REDUCER LEFT**

PART REF
XDT / RL / W1 / W2 / Finish

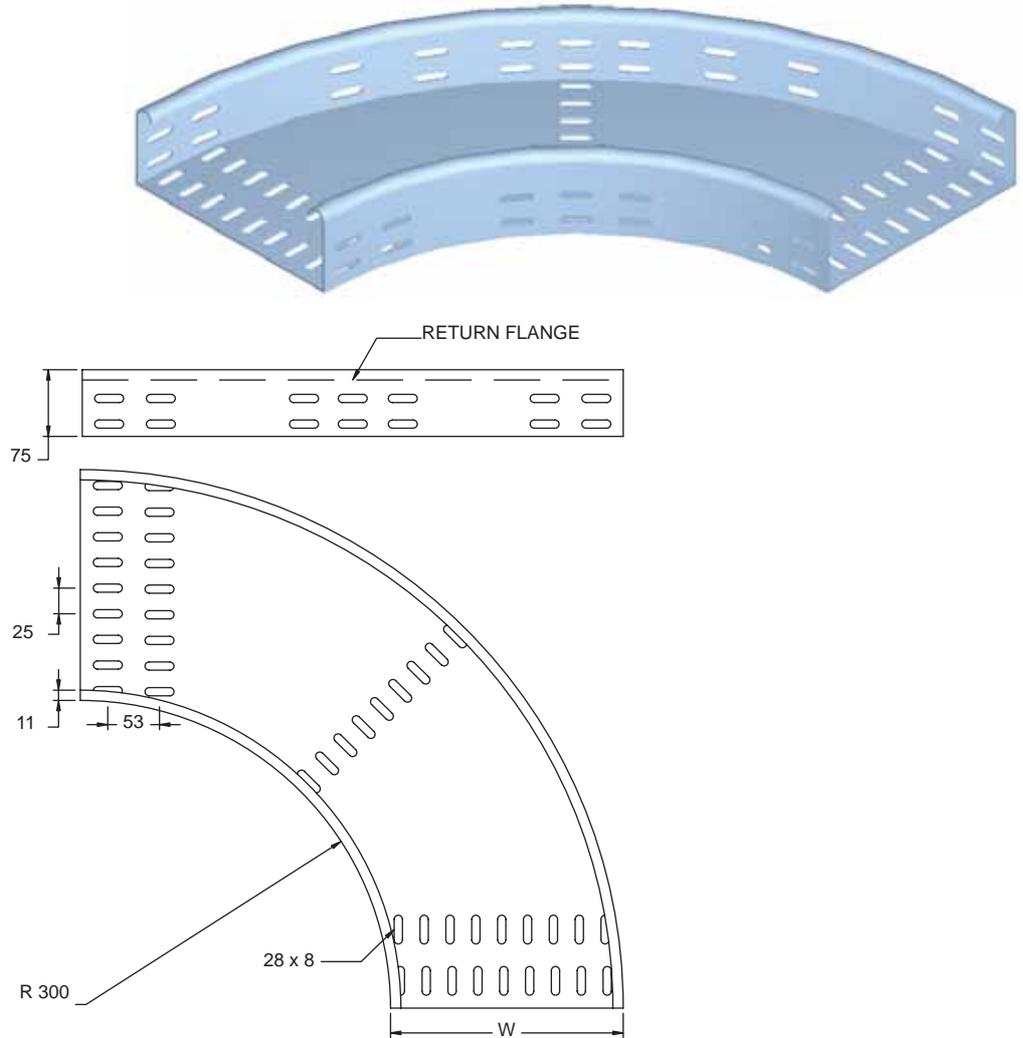


- Thickness for the Reducers to be followed of the larger size. For details refer page 64.
- PSI - Tray accessories are produced with integral connectors. No separate connectors are required.
- Bonding Jumpers are used for the Earthing Connectivity. For details refer page 84.

# EXTRA HEAVY DUTY INSIDE RETURN FLANGE CABLE TRAYS ROUND RADIAL ACCESSORIES

## XDT - ELBOW HORIZONTAL 30° / 45° / 60° / 90°

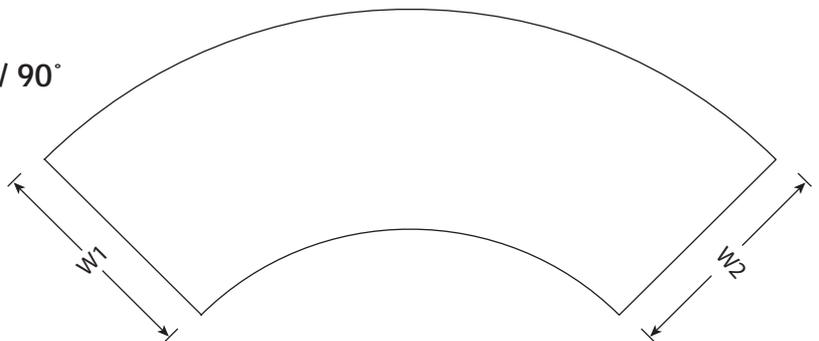
PART REF
XDT / EHR / 100 / A / Finish
XDT / EHR / 150 / A / Finish
XDT / EHR / 225 / A / Finish
XDT / EHR / 300 / A / Finish
XDT / EHR / 450 / A / Finish
XDT / EHR / 600 / A / Finish
XDT / EHR / 750 / A / Finish
XDT / EHR / 900 / A / Finish



- XDT Round Radial Accessories are joined by connectors. For details, refer page 65.
- For details of Thickness, Width & Finish, refer page 64.

## XDT - UNEQUAL ELBOW - 30° / 45° / 60° / 90°

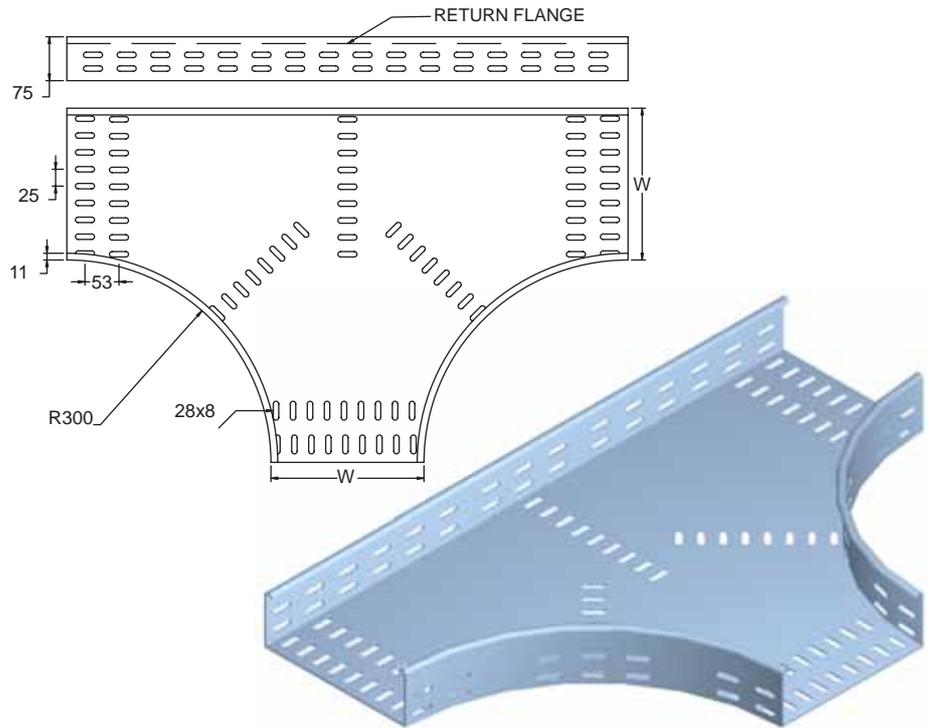
PART REF
XDT / UEHR / W1/ W2 / A / Finish



- For Unequal Elbow specify the widths as W1 & W2 as shown in the fig.
- Thickness for UEHR to be followed of the larger size. For details refer page no. 64

**XDT - TEE HORIZONTAL**

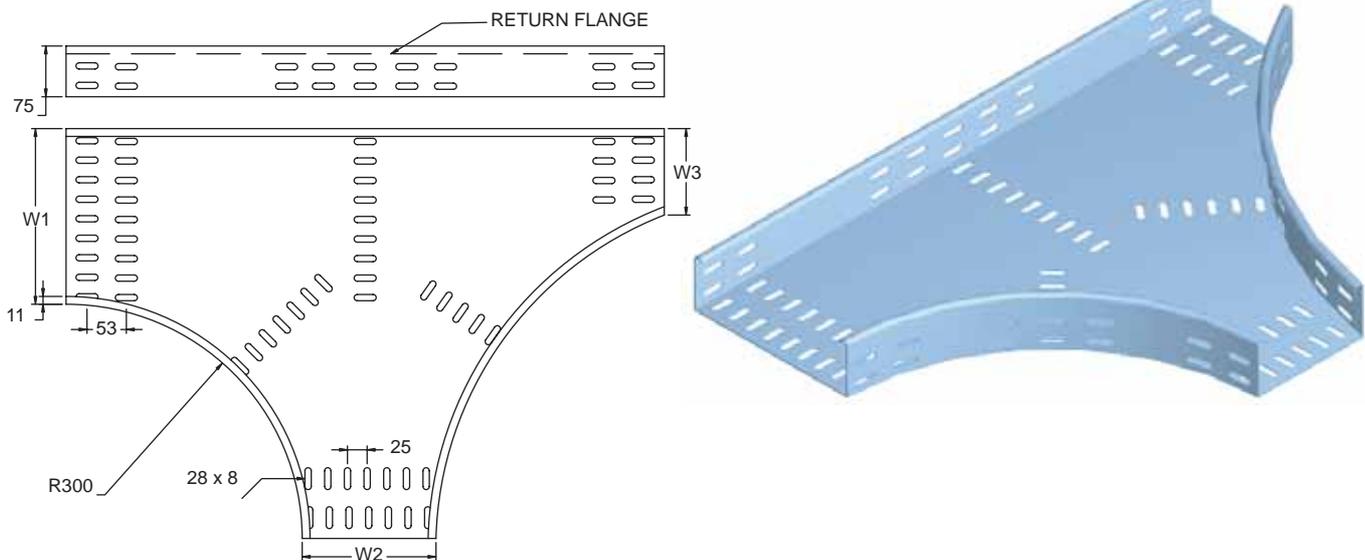
PART REF
XDT / THR / 100 / Finish
XDT / THR / 150 / Finish
XDT / THR / 225 / Finish
XDT / THR / 300 / Finish
XDT / THR / 450 / Finish
XDT / THR / 600 / Finish
XDT / THR / 750 / Finish
XDT / THR / 900 / Finish



- XDT Round Radial Accessories are joined by connectors, For details refer page 65.
- For support system for the installation, please refer Metal strut framing system of this manual.
- XDT Round Radial Accessory covers are produced on request. For details refer page 81.

**XDT - UN EQUAL TEE**

PART REF
XDT / UTHR / W1 / W2 / W3 Finish

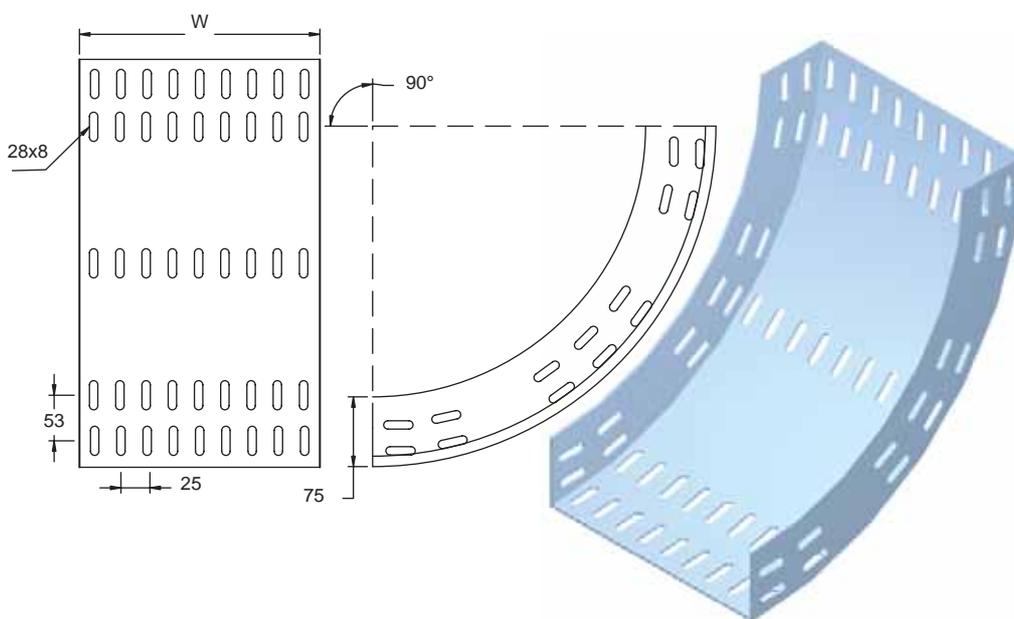


- For Unequal Tee specify widths W1, W2, W3 anti clockwise.
- Thickness for Unequal Tee to be followed of the larger size refer page 64.
- Unequal Tee can accomodate trays with different widths at one location.

## EXTRA HEAVY DUTY INSIDE RETURN FLANGE CABLE TRAYS ROUND RADIAL ACCESSORIES

### XDT - INTERNAL RISER - 30° / 45° / 60° / 90°

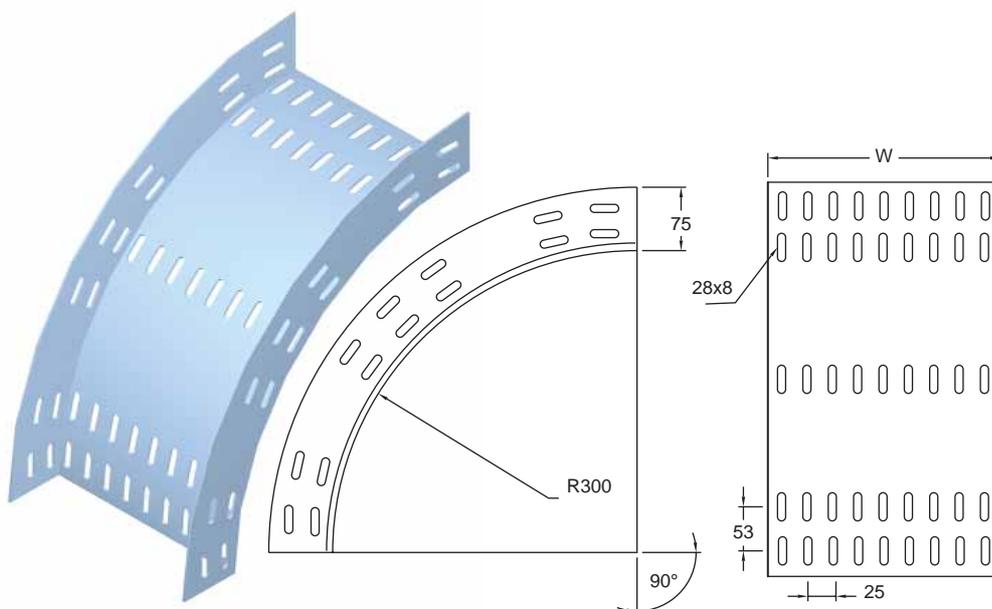
PART REF
XDT / IRR / 100 / A / Finish
XDT / IRR / 150 / A / Finish
XDT / IRR / 225 / A / Finish
XDT / IRR / 300 / A / Finish
XDT / IRR / 450 / A / Finish
XDT / IRR / 600 / A / Finish
XDT / IRR / 750 / A / Finish
XDT / IRR / 900 / A / Finish



- Bonding Jumpers are used for the Earthing Connectivity. For details refer page 84.
- For special gauges, sizes or design, consult our sales team or factory.

### XDT - EXTERNAL RISER - 30° / 45° / 60° / 90°

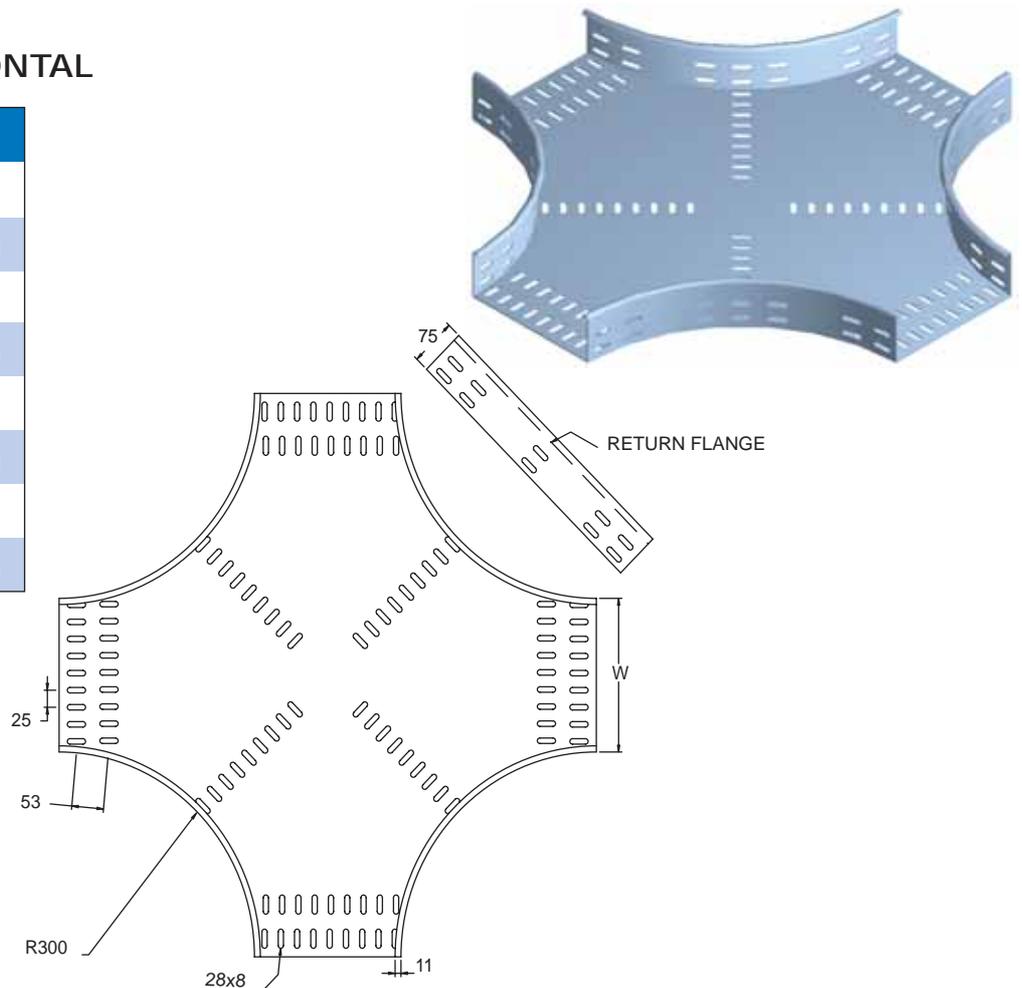
PART REF
XDT / ERR / 100 / A / Finish
XDT / ERR / 150 / A / Finish
XDT / ERR / 225 / A / Finish
XDT / ERR / 300 / A / Finish
XDT / ERR / 450 / A / Finish
XDT / ERR / 600 / A / Finish
XDT / ERR / 750 / A / Finish
XDT / ERR / 900 / A / Finish



- Risers are joined to XDT Trays by straight connectors. For details refer page 65.
- Fish Plates are recommended for the trays & accessories above 200mm widths for better load bearing capacity.
- Adjustable Risers are produced on request and are specified by XDT / AR / Width / Finish. For details refer page 70.
- Extra long Adjustable Risers can be produced on request and are specified by XDT / XLAR / Width / Finish.

**XDT - CROSS HORIZONTAL**

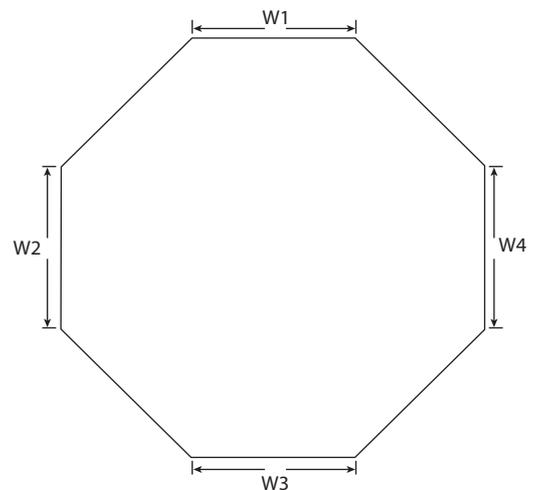
PART REF
XDT / CHR / 100 / Finish
XDT / CHR / 150 / Finish
XDT / CHR / 225 / Finish
XDT / CHR / 300 / Finish
XDT / CHR / 450 / Finish
XDT / CHR / 600 / Finish
XDT / CHR / 750 / Finish
XDT / CHR / 900 / Finish



- XDT Round Radial Accessories are joined by connectors. For details refer page 65
- Round Radial Accessory Covers are produced on request. For details refer page 81.

**XDT - UNEQUAL CROSS HORIZONTAL**

PART REF
XDT / UCHR / W1 / W2 / W3 / W4 / Finish



- For Unequal Cross specify the widths as W1,W2,W3,W4 in anti-clockwise direction as shown in the fig.
- Thickness for UCHR to be followed of the larger size. For details refer page 64.
- Bonding Jumpers are used for the Earthing Connectivity. For details refer page 81.
- For XDT reducer details, refer page 71

# EXTRA HEAVY DUTY INSIDE RETURN FLANGE CABLE TRAYS

## WEIGHT OF THE COMPONENTS

XDT - CABLE TRAY

WIDTH(mm)	WT. (Kgs.)
100	9.010
150	10.600
225	12.953
300	15.328
450	26.786
600	34.132
750	39.824
900	46.10

STRAIGHT CONNECTOR

WIDTH(mm)	WT. (Kgs.)
100 to 300	0.227
450 to 900	0.303

FLANGE CONNECTOR

WIDTH(mm)	WT. (Kgs.)
100 to 300	0.277
450 to 900	0.369

COVERS FOR STRAIGHT LENGTHS

WIDTH(mm)	WT. (Kgs.)
100	3.233
150	4.484
225	6.371
300	8.226
450	14.363
600	18.847
750	29.055
900	34.673

XDT - ELBOW HORIZONTAL

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
100	0.742	1.378
150	0.912	1.738
225	1.208	2.321
300	1.569	3.042
450	3.286	6.402
600	4.781	9.381
750	6.593	13.059
900	8.734	17.310

XDT - EXTERNAL RISER

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
100	0.763	1.569
150	0.912	1.855
225	1.124	2.290
300	1.325	2.714
450	2.353	4.759
600	2.915	5.894
750	3.487	7.038
900	4.049	8.173

XDT - TEE HORIZONTAL

WIDTH(mm)	WT. (Kgs.)
100	2.247
150	3.021
225	3.869
300	4.865
450	9.625
600	13.557
750	18.232
900	23.627

XDT - CROSS HORIZONTAL

WIDTH(mm)	WT. (Kgs.)
100	2.735
150	3.837
225	4.749
300	5.809
450	11.077
600	15.211
750	20.151
900	25.461

XDT - INTERNAL RISER

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
100	0.922	1.844
150	1.102	2.205
225	1.378	2.756
300	1.654	3.297
450	2.915	5.830
600	3.646	7.282
750	4.367	8.724
900	5.088	10.165

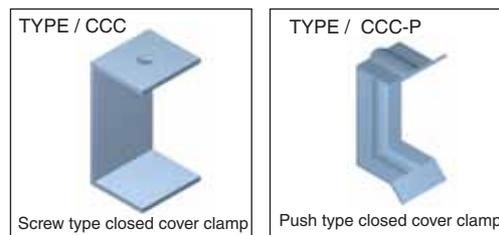
Note: For Accessories Cover refer page 78

## CABLE TRAY ACCESSORY COVERS

- PHDT : Heavy Duty Straight Flange Cable Tray  
 MDT : Medium Duty Inside return flange Cable Tray  
 HDT : Heavy Duty Inside return flange Cable Tray  
 XDT : Extra Heavy Duty Inside return flange Cable Tray.

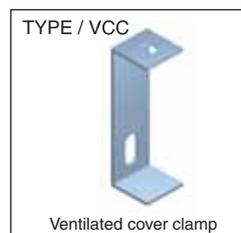
- Cable Tray Accessory Covers are produced to suit different accessories of PSI - Cable Tray System.
- Thickness of the covers is to be followed according to the sizes provided in the beginning of respective cable tray types.
- Specify type in the beginning while ordering cable tray accessory covers.

### CLOSED COVER CLAMP



Screw type closed cover clamp is supplied in 3mm thickness for closed cover arrangement with the set of M6 x 12 roofing bolts & washers. Push type clamp is optional. To be ordered separately

### VENTILATED COVER CLAMP



Ventilated cover clamp is supplied in 2mm thickness for Ventilated cover arrangement with the set of M6 x 12 roofing bolts, nuts & washers. To be ordered separately

- To order Unequal Covers, use 'U' as prefix to accessory cover and W1, W2, W3, W4 in place of width wherever applicable.
- Specify angle while ordering Elbow horizontal and Riser Covers.
- Covers can be used as closed or ventilated by using an appropriate clamp.
- Necessary holes are provided on the covers for clamping.

## ELBOW HORIZONTAL CLOSED COVER

PART REF
TYPE / EHCC / Width / A / Finish

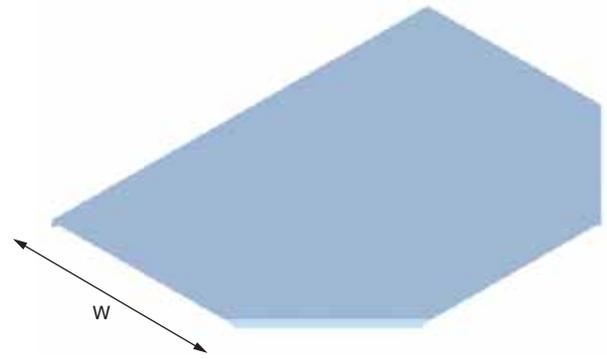


## ELBOW HORIZONTAL VENTILATED COVER

PART REF
TYPE / EHVC / Width / A / Finish

## TEE HORIZONTAL CLOSED COVER

PART REF
TYPE / THCC / Width / Finish

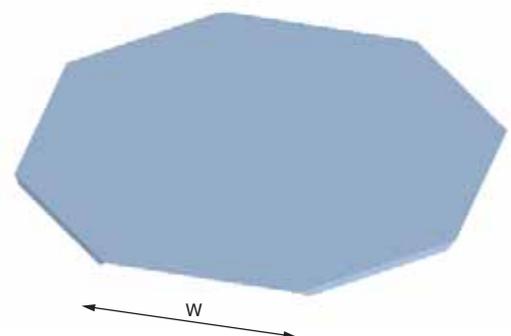


## TEE HORIZONTAL VENTILATED COVER

PART REF
TYPE / THVC / Width / Finish

## CROSS HORIZONTAL CLOSED COVER

PART REF
TYPE / CHCC / Width / Finish



## CROSS HORIZONTAL VENTILATED COVER

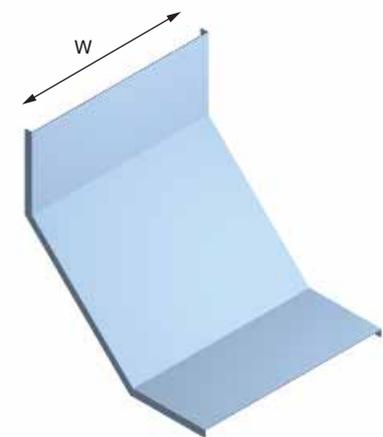
PART REF
TYPE / CHVC / Width / Finish

## INTERNAL RISER CLOSED COVER

PART REF
TYPE / IRCC / Width / A / Finish

## INTERNAL RISER VENTILATED COVER

PART REF
TYPE / IRVC / Width / A / Finish



## CABLE TRAY ACCESSORY COVERS

### EXTERNAL RISER CLOSED COVER

#### PART REF

TYPE / ERCC / Width / A / Finish

### EXTERNAL RISER VENTILATED COVER

#### PART REF

TYPE / ERVC / Width / A / Finish

### UN-EQUAL TEE CLOSED COVER

#### PART REF

TYPE / UTCC / W1 / W2 / W3 / Finish

### UN-EQUAL TEE VENTILATED COVER

#### PART REF

TYPE / UTVC / W1 / W2 / W3 / Finish

### REDUCER STRAIGHT CLOSED COVER

#### PART REF

TYPE / RSCC / W1 / W2 / Finish

### REDUCER STRAIGHT VENTILATED COVER

#### PART REF

TYPE / RSVC / W1 / W2 / Finish

### REDUCER RIGHT CLOSED COVER

#### PART REF

TYPE / RRCC / W1 / W2 / Finish

### REDUCER RIGHT VENTILATED COVER

#### PART REF

TYPE / RRVC / W1 / W2 / Finish

### REDUCER LEFT CLOSED COVER

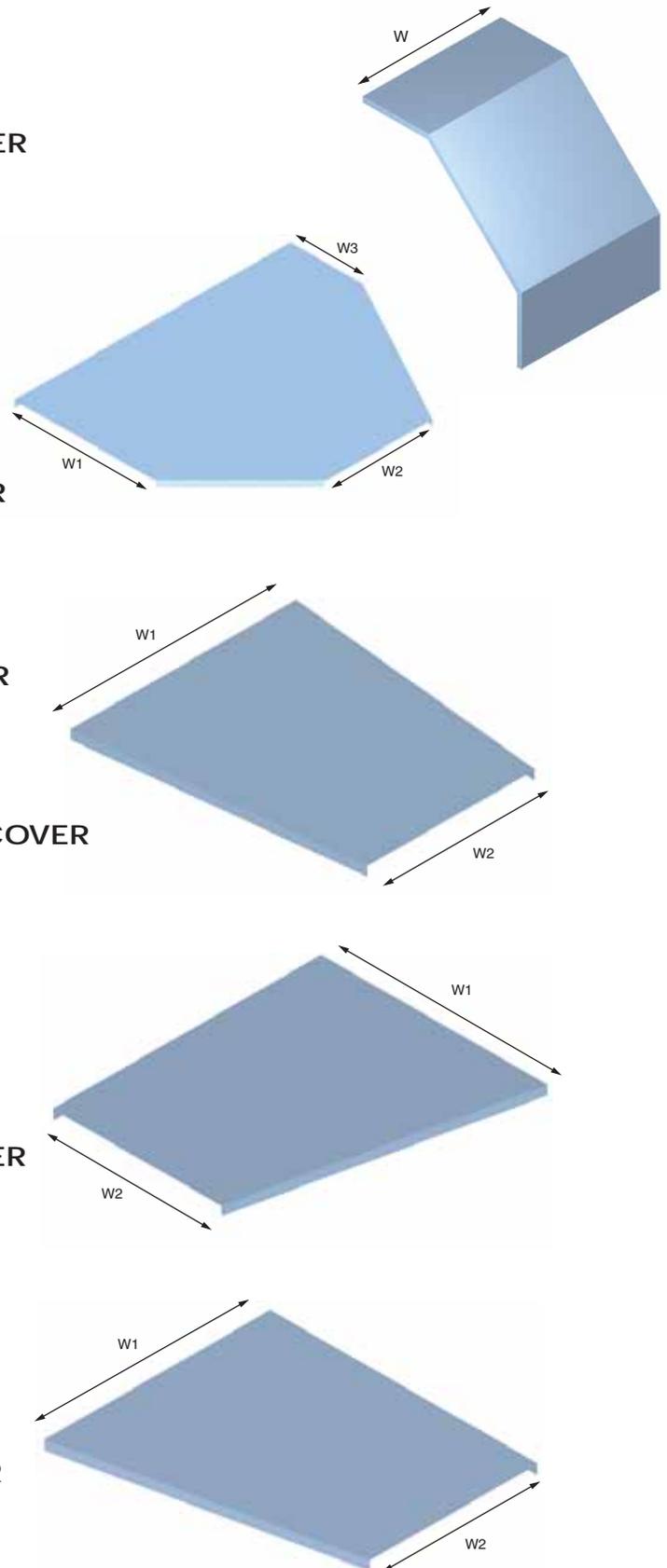
#### PART REF

TYPE / RLCC / W1 / W2 / Finish

### REDUCER LEFT VENTILATED COVER

#### PART REF

TYPE / RLVC / W1 / W2 / Finish





## ELBOW HORIZONTAL CLOSED COVER

<b>PART REF</b>
TYPE / EHRCC / Width / A / Finish

## ELBOW HORIZONTAL VENTILATED COVER

<b>PART REF</b>
TYPE / EHRVC / Width / A / Finish

## TEE HORIZONTAL CLOSED COVER

<b>PART REF</b>
TYPE / THRCC / Width / Finish

## TEE HORIZONTAL VENTILATED COVER

<b>PART REF</b>
TYPE / THRVC / Width / Finish

## CROSS HORIZONTAL CLOSED COVER

<b>PART REF</b>
TYPE / CHRCC / Width / Finish

## CROSS HORIZONTAL VENTILATED COVER

<b>PART REF</b>
TYPE / CHRVC / Width / Finish

## INTERNAL RISER CLOSED COVER

<b>PART REF</b>
TYPE / IRRCC / Width / A / Finish

## INTERNAL RISER VENTILATED COVER

<b>PART REF</b>
TYPE / IRRVC / Width / A / Finish

## EXTERNAL RISER CLOSED COVER

<b>PART REF</b>
TYPE / ERRCC / Width / A / Finish

## EXTERNAL RISER VENTILATED COVER

<b>PART REF</b>
TYPE / ERRVC / Width / A / Finish

## UN-EQUAL TEE CLOSED COVER

<b>PART REF</b>
TYPE / UTRCC / W1 / W2 / W3 / Finish

## UN-EQUAL TEE VENTILATED COVER

<b>PART REF</b>
TYPE / UTRVC / W1 / W2 / W3 / Finish

- Specify the type in the beginning while ordering the cable tray accessory covers.
- Thickness of the covers to be followed according to the sizes provided in the beginning of respective cable tray types.
- For cover clamp details, refer page 78.

## CABLE TRAY FITTINGS

Cable Tray fittings are produced to suit standard and complexed installations of the cable tray system.

### STANDARD FINISHES

HDG	Hot dip Galvanized to BS EN ISO 1461:1999 (Formerly BS 729)
PG	Pre-galvanized to BS EN 10142 & 10143
PC	Powder Coating to suit clients requirements
SS	Stainless steel finish to required grades

### TYPES

LDT	:	Light Duty Straight Flange Cable Tray
PHDT	:	Heavy Duty Straight Flange Cable Tray
MDT	:	Medium Duty Inside Return Flange Cable Tray
HDT	:	Heavy Duty Inside Return Flange Cable Tray
XDT	:	Extra Heavy Duty Inside Return Flange Cable Tray

### ORDER PATTERN

To select the required component, please specify the component, type width & finish.

### EXAMPLE FOR BOX CONNECTOR

COMPONENT / TYPE / WIDTH / FINISH      BXC / HDT / WIDTH / HDG

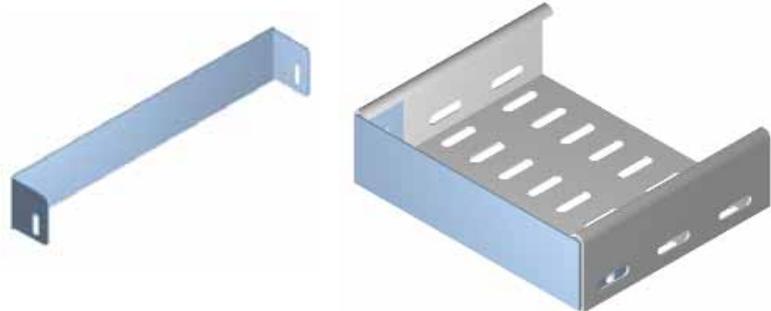
- *For special finishes consult our sales team, factory.*
- *For special sizes, gauges, flanges, consult our sales team, factory.*
- *For support system for the installation, please refer Metal strut framing system of this manual.*

## BLIND END

### PART REF

BE / Type / Width / Finish

Width (mm)	Thickness (mm)
50 to 300	1.5
450 to 900	2.0



Roofing Bolt M6 x 12, nuts & washers are used for fastening.

## REDUCING CONNECTOR

### PART REF

RC / Type / W1-W2 / Finish

Width (mm)	Thickness (mm)
50 to 300	1.5
450 to 900	2.0



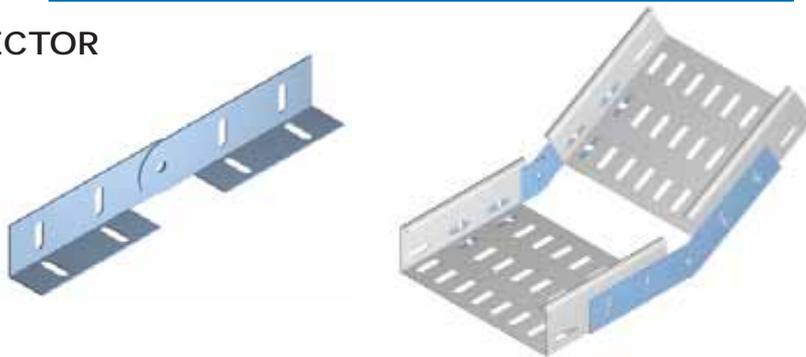
Roofing Bolt M6 x 12, nuts & washers are used for fastening.

## ADJUSTABLE VERTICAL CONNECTOR

### PART REF

AVC / Type / Finish

Standard thickness for Adjustable Vertical connectors is 2.0 mm. Roofing Bolt M6 x 12, nuts & washers are used for fastening.

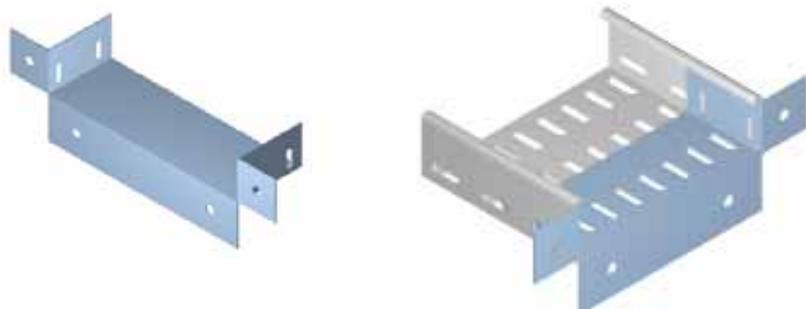


## BOX CONNECTOR

### PART REF

BXC / Type / Width / Finish

Width (mm)	Thickness (mm)
50 to 300	1.5
450 to 900	2.0



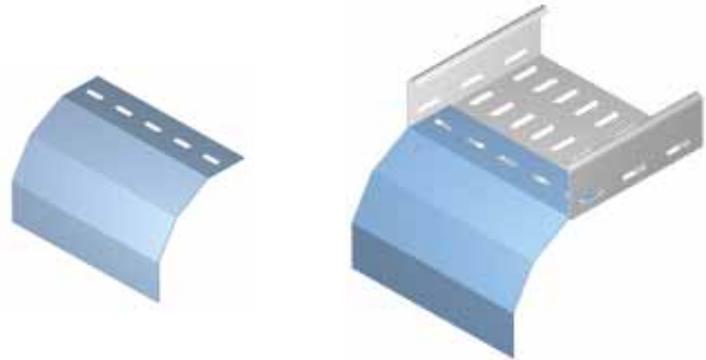
Roofing Bolt M6 x 12, nuts & washers are used for fastening.

## CABLE TRAY FITTINGS

### DROP OUT

PART REF	
DOT / Width / Finish	

Width (mm)	Thickness (mm)
50 to 300	1.5
450 to 900	2.0

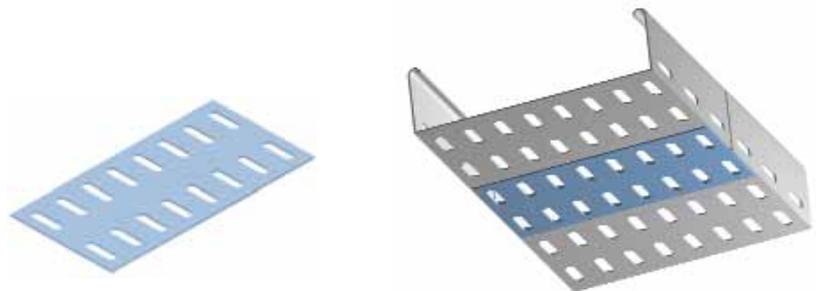


Roofing Bolt M6 x 12, nuts & washers are used for fastening.

### FISH PLATE

PART REF	
FP / Width / Finish	

Width (mm)	Thickness (mm)
50 to 300	1.5
450 to 900	2.0

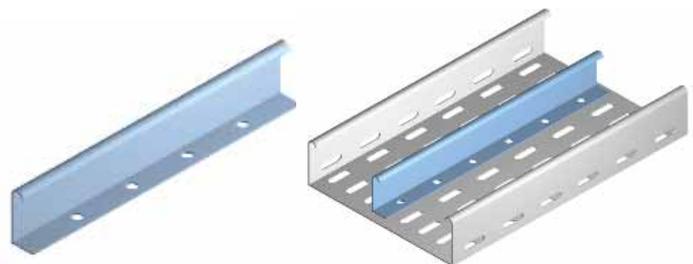


Roofing Bolt M6 x 12, nuts & washers are used for fastening.

### BARRIER STRAIGHT

PART REF	
BS / Type / Finish	

All barrier straights are in standard length of 3.0 MTS and 1.5 mm thickness. Roofing Bolt M6 x 12, nuts & washers are used for fastening.



### HOLD DOWN CLAMP

PART REF	
HDC / Type / Finish	

All hold down clamps are in standard thickness of 2.0 mm and hexagonal bolts M8 x 20, nuts and washers are used for clamping.



### BONDING JUMPER

PART REF	
BJT	



Area: 4 mm<sup>2</sup>. Length: 112 mm centre to centre

Bonding jumper for earthing connectivity of cable tray is produced from braided tinned copper with M6 copper lugs on both sides. M6 x 12 roofing bolts, nuts and washer are used. To be ordered separately.



# CABLE TRAY LOAD GRAPHS

## SAFE WORKING LOADS

The following Loading Charts are to give guidance on maximum safe working loads when using Cable Ladders & Trays (installed horizontally) produced by PSI. They are published in accordance with the requirements of the industry standard BS EN 61537:2001. Load tests simulated the conditions of a multiple span of at least 4 spans with the end spans reduced to 75% of the intermediate spans.

The graphical presentation links established maximum safe working loads at specified intermediate spans.

Loads below the drawn line are SAFE - loads above the drawn line are UNSAFE.

When using this information the installer should take into account:

1. The guidance offered in our presentation of system design considerations should be studied
2. Loading is assumed to be uniformly distributed. If point loads are imposed or the installation is less than 4 spans our technical department should be consulted.
3. The graphs should not be extrapolated to shorter or longer spans than those shown.
4. The installer should be satisfied that supports are of adequate strength and that all connections are fully tightened
5. The loading information is given in good faith based on tests carried out with PSI products. However, PSI cannot be held responsible for a variation in performance of this product range.

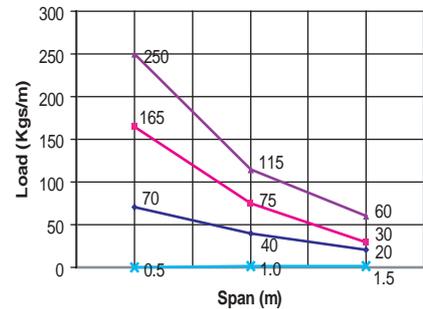
## WARNING!

**PSI CABLE TRAYS & LADDERS ARE PART OF A CABLE MANAGEMENT SYSTEM. THEY SHOULD NEVER BE USED FOR OTHER STRUCTURAL PURPOSES AND MUST NOT BE USED AS WALKWAYS BY INSTALLATION OR MAINTENANCE PERSONNEL.**

### LDT

150	300	600	Span - between supports (m)
Uniformly Distributed Load (Kgs/m)	Uniformly Distributed Load (Kgs/m)	Uniformly Distributed Load (Kgs/m)	
70	165	250	0.5
40	75	115	1.0
20	30	60	1.5

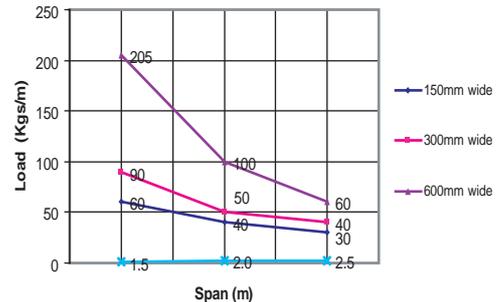
Light Duty Straight Flange Cable Tray



### PHDT

150	300	600	Span - between supports (m)
Uniformly Distributed Load (Kgs/m)	Uniformly Distributed Load (Kgs/m)	Uniformly Distributed Load (Kgs/m)	
60	90	205	1.5
40	50	100	2.0
30	40	60	2.5

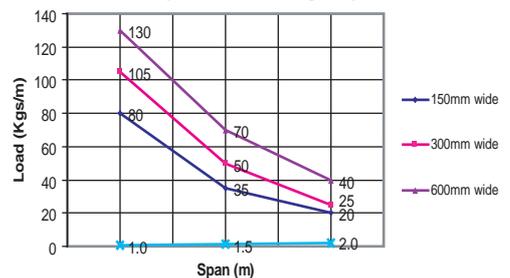
Heavy Duty Straight Flange Tray



### MDT

150	300	600	Span - between supports (m)
Uniformly Distributed Load (Kgs/m)	Uniformly Distributed Load (Kgs/m)	Uniformly Distributed Load (Kgs/m)	
80	105	130	1.0
35	50	70	1.5
20	25	40	2.0

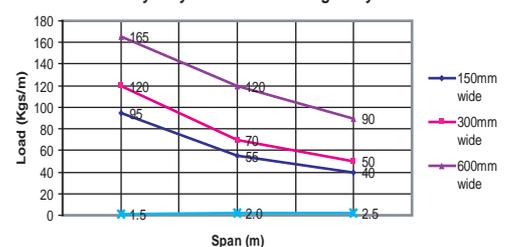
Medium Duty Inside Return Flange Tray



### HDT

150	300	600	Span - between supports (m)
Uniformly Distributed Load (Kgs/m)	Uniformly Distributed Load (Kgs/m)	Uniformly Distributed Load (Kgs/m)	
95	120	165	1.5
55	70	120	2.0
40	50	90	2.5

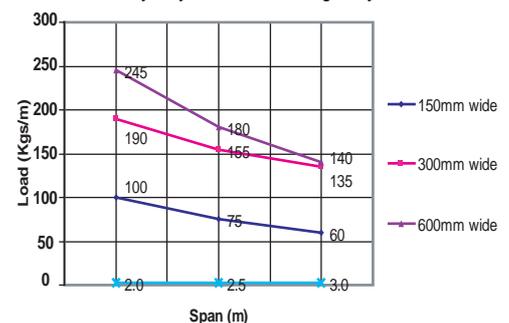
Heavy Duty Inside Return Flange Tray



### XDT

150	300	600	Span - between supports (m)
Uniformly Distributed Load (Kgs/m)	Uniformly Distributed Load (Kgs/m)	Uniformly Distributed Load (Kgs/m)	
100	190	245	2.0
75	155	180	2.5
60	135	140	3.0

Extra Heavy Duty Inside Return Flange Tray





## STEEL SPECIFICATIONS

### Mild Steel - Cold Reduced Continuous Coils > 1.5mm thick

Table 1: Composition

#### BS EN 10111 : 2002

Cast analysis % by mass

Descrip:	Number	C	Mn	P	S	Yield N/mm <sup>2</sup>	UTS N/mm <sup>2</sup>	Elongation %
DD 11	1.0332	<0.12	<0.6	<0.045	<0.45	>200	>280	>28

Tolerance on thickness

Table 2: Continuously Hot Rolled Low Carbon Steel For Cold Forming

#### BS EN 10051 : 1992

Width of parent coil (mm)

Nominal thickness (mm)	Width of parent coil (mm)			
	<1200	>1200 <1500	>1500 <1800	>1800
<=2.00	0.13	0.14	0.16	
>2.00 <=2.5	0.14	0.16	0.17	0.19
>2.50 <=3.00	0.15	0.17	0.18	0.20
>3.00 <=4.00	0.17	0.18	0.20	0.20
>4.00 <=5.00	0.18	0.20	0.21	0.22
>5.00 <=6.00	0.20	0.21	0.22	0.22

Tabulated values are tolerance of thickness plus & minus value (mm)



## STEEL SPECIFICATIONS

### Mild Steel - Cold reduced continuous coils < 1.5mm thick

Table - 2: Composition

BS EN 10130:1999

Cast analysis % by mass

Guidance values

Descrip	Number	C	Mn	P	S
DC 01	1.0330	< 0.12	< 0.6	< 0.045	< 0.45

Yield N/mm <sup>2</sup>	UTS N/mm <sup>2</sup>	Elongation %
> 200	> 280	> 28

Tolerance on thickness

Table 1

BS EN 10031:2003

Nominal thickness  
(mm)

Width of parent coil (mm)

	Width of parent coil (mm)		
	<1200	>1200 <1500	>1500
>0.80 <=1.00	0.07	0.08	0.09
>1.00 <=1.20	0.08	0.09	0.10
>1.20 <=1.60	0.10	0.11	0.11
>1.60 <=2.00	0.12	0.13	0.13

Tabulated values are tolerance of thickness plus & minus value (mm)



# STEEL SPECIFICATIONS

## Pre - Gavanised Continuously Rolled Coil

Table 1: Composition

### BS EN 10327

Cast analysis % by mass

#### Guidance values

Descrip:	Number	C	Mn	P	S	Si	Ti	Yield N/mm <sup>2</sup>	UTS N/mm <sup>2</sup>	Elongation %
DX51D	1.0226	<0.12	<0.6	<0.10	<0.45	<0.5	<0.30	>200	>280	>25

Tolerance on thickness

Table 1 **BS EN 10143**

Nominal thickness (mm)	Width of parent coil (mm)		
	<1200	>1200 <1500	>1500
>0.80 <=1.00	0.08	0.01	0.10
>1.00 <=1.20	0.09	0.10	0.11
>1.20 <=1.60	0.11	0.12	0.12
>1.60 <=2.00	0.13	0.14	0.14
>2.00 <=2.5	0.15	0.16	0.16

Tabulated values are tolerance of thickness plus & minus value (mm)

Coating mass Designation	<b>BS EN 10327</b> Coating mass (both surfaces)		Table 3 Coat thickness	
	Triple spot g/mm <sup>2</sup>	Single spot g/mm <sup>3</sup>	Typical microns	Range microns
Z275	275	235	20	15 to 27



## STEEL SPECIFICATIONS

### Stainless Steel - Austenitic Type Exhibiting Superior Corrosion Resistant Properties

Table 3: Composition

#### BS EN 10088

Cast analysis % by mass

Descrip :	Number	C	Si	Mn	P	S	N	Cr	Mo	Ni
X5CrNiMo17-12-2	1.4401	<0.07	<1.00	<2.00	<0.045	<0.015	<0.11	16.5 to 18.50	2.00 to 2.50	10.00 to 13.00

Tolerance of thickness

#### BS EN 10051

Table 3 : Steels with a normal deformation resistance at elevated temperatures

Nominal thickness  
(mm)

Width of parent coil (mm)

	<1200	>1200 <1500	>1500 <1800	>1800
<=2.00	0.17	0.19	0.21	
>2.00 <=2.5	0.18	0.21	0.23	0.25
>2.50 <=3.00	0.20	0.22	0.24	0.26
>3.00 <=4.00	0.22	0.24	0.26	0.27
>4.00 <=5.00	0.24	0.26	0.28	0.29
>5.00 <=6.00	0.26	0.28	0.29	0.31

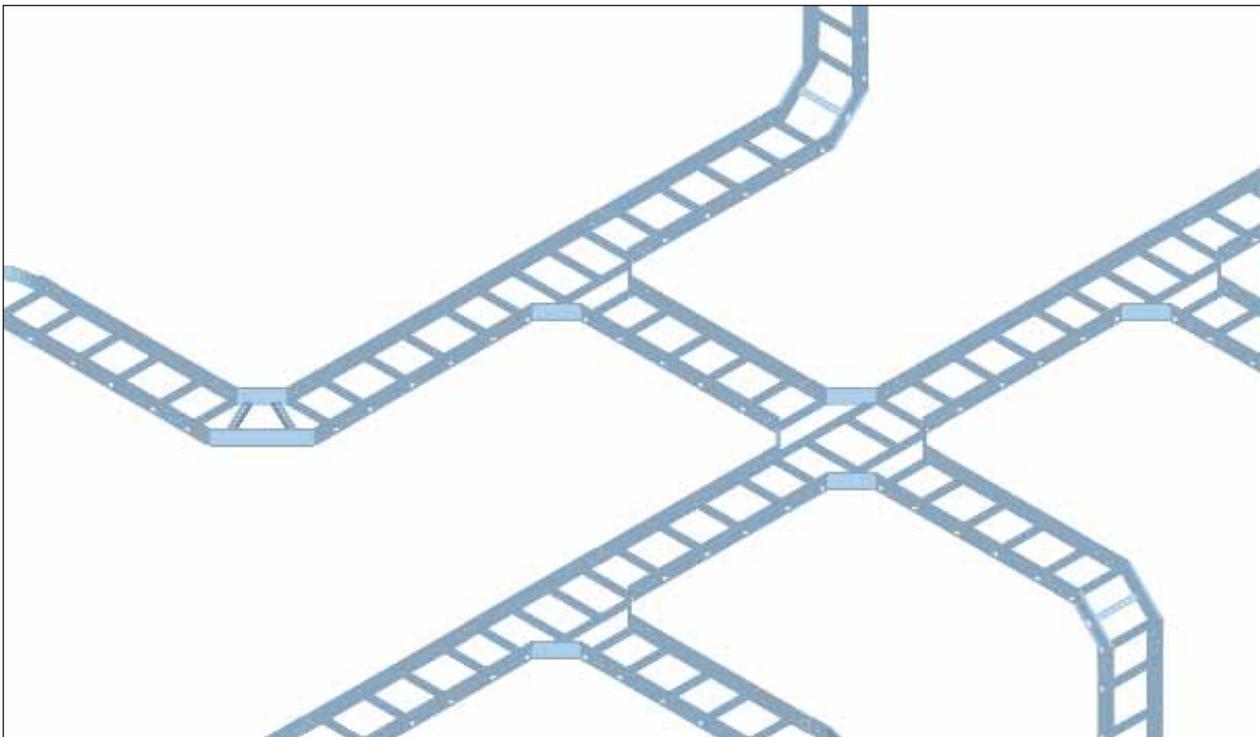
Tabulated values are tolerance of thickness plus& minus value (mm)



## CABLE LADDER SYSTEMS



## CABLE LADDERS



## CABLE LADDER NETWORK

## LIGHT DUTY METAL CABLE LADDERS

### FOR STRAIGHT LENGTHS AND ACCESSORIES

Range / Width (W)	Thickness (T)	Side Height (H)	Usable Height
All dimensions are in mm			
100 to 600	1.5	60	43

- Light duty cable ladders are produced in a standard length of 3 mtrs but can be produced in different lengths on request.
- Light duty cable ladders are produced up to 600mm wide only. LDL are provided with inside return flanges to provide extra rigidity and strength to the ladder.
- Light duty cable ladder accessories are produced to standard radius of 300 mm but can be produced in 450 mm, 600mm and 900 mm as required.
- Accessories are provided at the end ladder chapter.

### STANDARD FINISHES

HDG	Hot dip Galvanized to BS EN ISO 1461:1999 (Formerly BS 729)
PG	Pre-galvanized to BS EN 10142 & 10143
PC	Powder Coating to suit clients requirements
SS	Stainless steel finish to required grades

### COVERS FOR STRAIGHT LENGTHS AND ACCESSORIES

Range / Width (W)	Thickness (T)	Side Height (H)
All dimensions are in mm		
100 to 300	1.0	11
450 to 600	1.2	11

### RUNG DETAILS

Range / Width (W)	Thickness (T)
All dimensions are in mm	
100 to 600	2.0

### RUNG SPACING

The standard rung spacing is 300mm. Optional Rung spacing 150mm, 250mm.

### ORDER PATTERN

To select the required component, please specify the type, component, width, finish. Angles can be mentioned wherever necessary.

#### EXAMPLE:

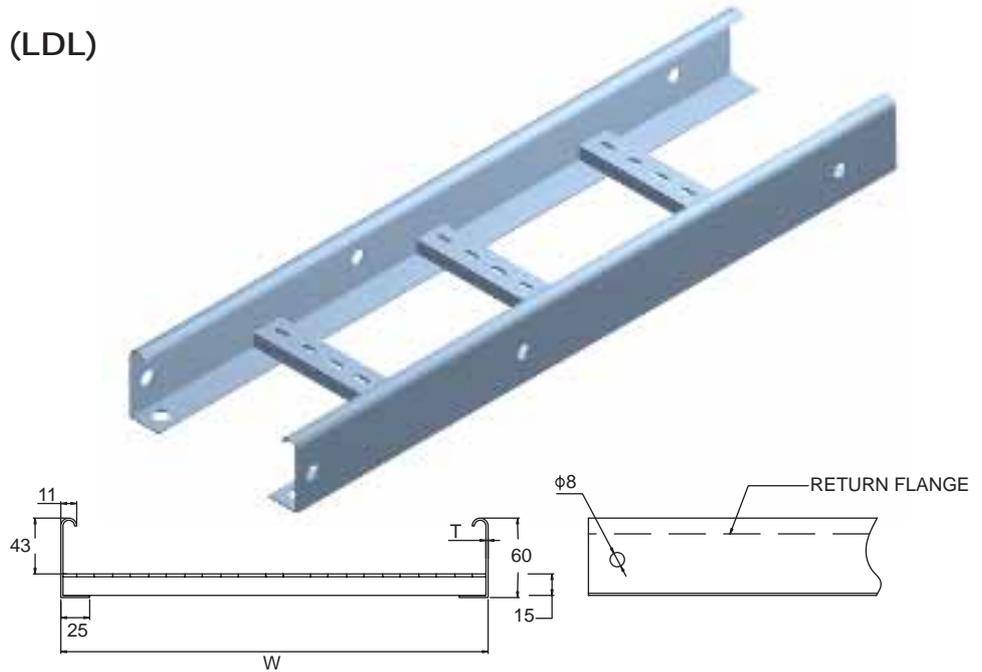
TYPE / COMPONENT / WIDTH / FINISH (without angle)      LDL / COM / WIDTH / FINISH  
 TYPE / COMPONENT / WIDTH / ANGLE / FINISH (with angle)    LDL / COM / WIDTH / A / HDG

**Note:** For special sizes, gauges, flanges, consult our sales team, factory  
 Standard rungs for the light duty ladder are slotted type.

# LIGHT DUTY METAL CABLE LADDERS

## LIGHT DUTY LADDERS - (LDL)

PART REF
LDL / CL / 100 / Finish
LDL / CL / 150 / Finish
LDL / CL / 225 / Finish
LDL / CL / 300 / Finish
LDL / CL / 450 / Finish
LDL / CL / 600 / Finish



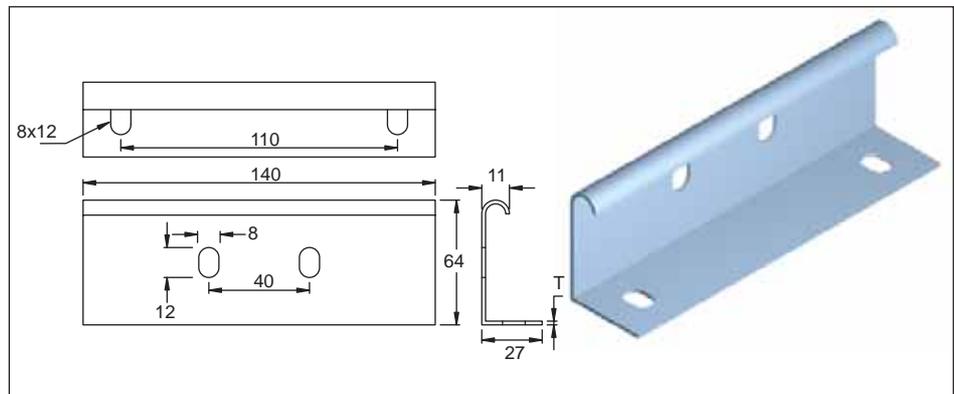
## CONNECTORS

Light duty cable ladders are joined together by flange connectors. LD Cable ladders are produced with flange type connectors. Connectors are supplied in pairs with a set of M6 x 12 roofing bolt, nut and washer. To be ordered separately.

## FLANGE CONNECTORS

PART REF
LDL / FCL/ Finish

Width (mm)	Thickness (mm)
100 to 600	2.0



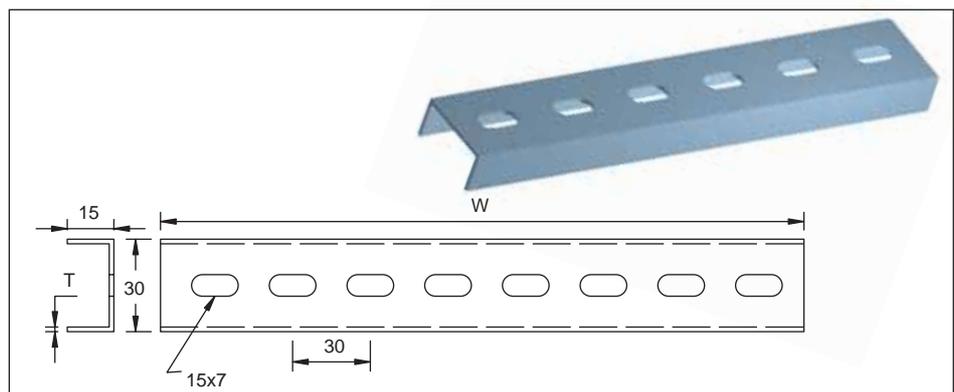
- LD Ladder connectors are provided with flanges to wrap up the side member of the ladder to provide extra strength to the component
- Expansion connectors are also provided to ease the installation process at site. Refer page 106.

## RUNGS

Standard rungs for the light duty ladder are slotted C type.

## RUNG SPACING

The standard rung spacing is 300mm. Optional Rung spacing 150mm, 250mm.



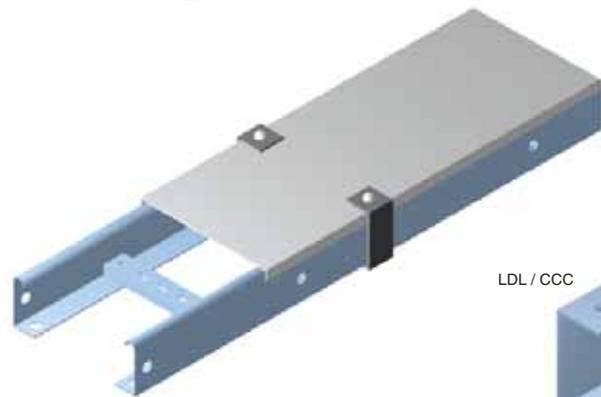
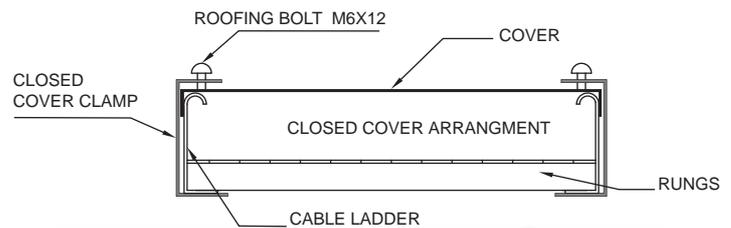
# LIGHT DUTY METAL CABLE LADDERS

## CABLE LADDER CLOSED COVERS

PART REF
LDL / CLCC / 100 / Finish
LDL / CLCC / 150 / Finish
LDL / CLCC / 225 / Finish
LDL / CLCC / 300 / Finish
LDL / CLCC / 450 / Finish
LDL / CLCC / 600 / Finish

### CLOSED COVER CLAMP

Screw type closed cover clamp LDL/CCC is supplied in 3 mm thickness for closed cover arrangement with M6 x 12 roofing bolt. To be ordered separately.

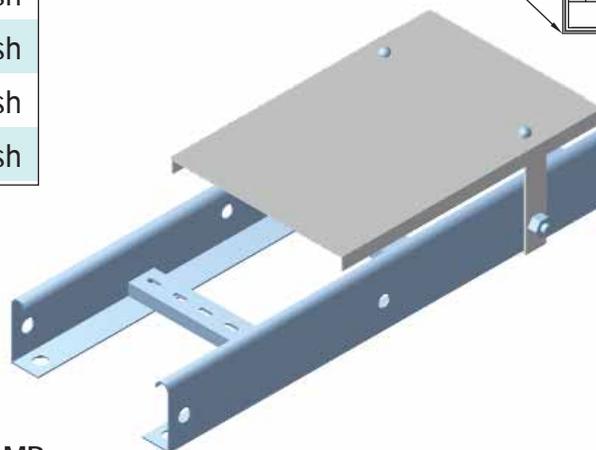
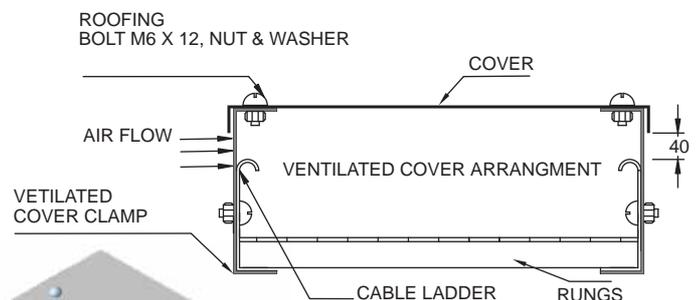


## CABLE LADDER VENTILATED COVERS

PART REF
LDL / CLVC / 100 / Finish
LDL / CLVC / 150 / Finish
LDL / CLVC / 225 / Finish
LDL / CLVC / 300 / Finish
LDL / CLVC / 450 / Finish
LDL / CLVC / 600 / Finish

### VENTILATED COVER CLAMP

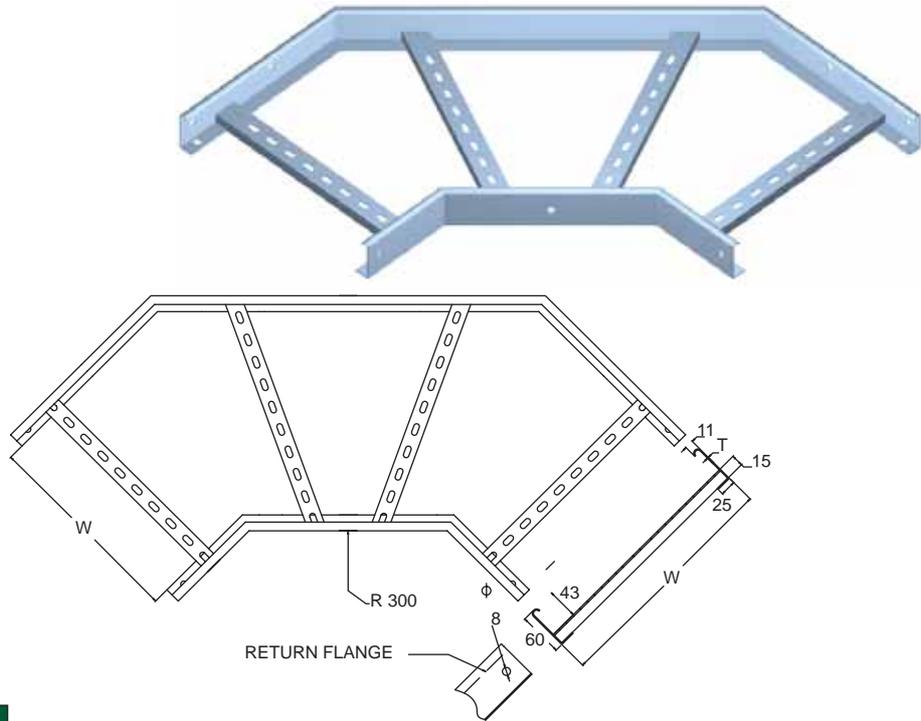
Ventilated cover clamp LDL/VCC is supplied in 2mm thickness for Ventilated cover arrangement with the set of M6 x 12 roofing bolts nuts & washers. To be ordered separately.



- Covers can be used as closed or ventilated by using an appropriate clamp. Necessary holes are provided on the covers for clamping.
- Covers can be produced with louvers also on request.
- For special sizes, gauges, flanges, consult our sales team, factory.

## LDL - ELBOW HORIZONTAL 30° / 45° / 60° / 90°

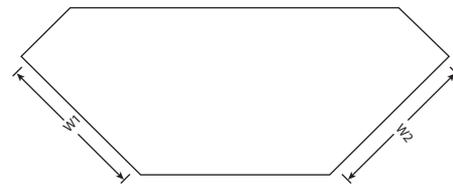
PART REF
LDL / EHL / 100 / A / Finish
LDL / EHL / 150 / A / Finish
LDL / EHL / 225 / A / Finish
LDL / EHL / 300 / A / Finish
LDL / EHL / 450 / A / Finish
LDL / EHL / 600 / A / Finish



## LDL-UNEQUAL ELBOW

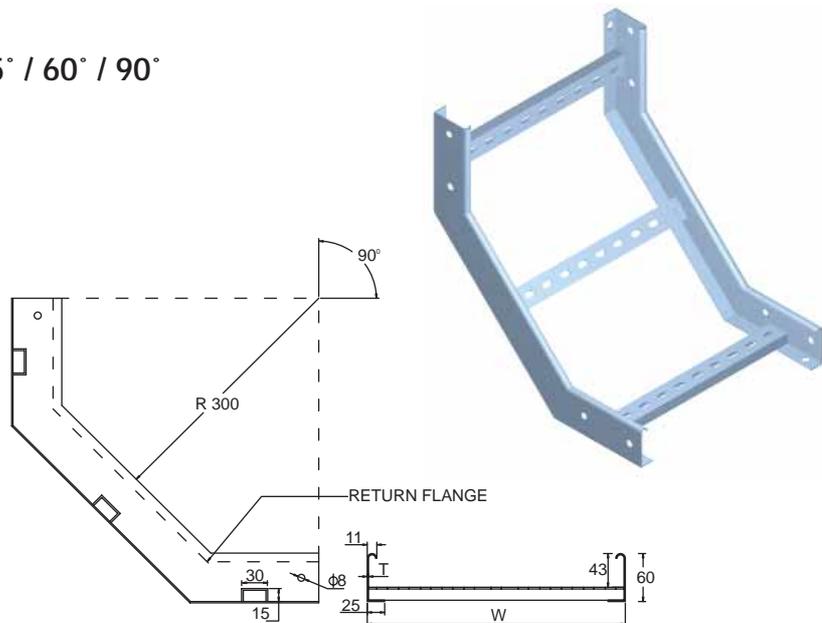
PART REF
LDL/UEHL/W1/W2/A/FINISH

For Un Equal Elbow, specify width W1 and W2 as shown. Thickness for elbow to be followed of the larger size for details refer page 92.



## LDL - INTERNAL RISER - 30° / 45° / 60° / 90°

PART REF
LDL / IRL / 100 / A / Finish
LDL / IRL / 150 / A / Finish
LDL / IRL / 225 / A / Finish
LDL / IRL / 300 / A / Finish
LDL / IRL / 450 / A / Finish
LDL / IRL / 600 / A / Finish



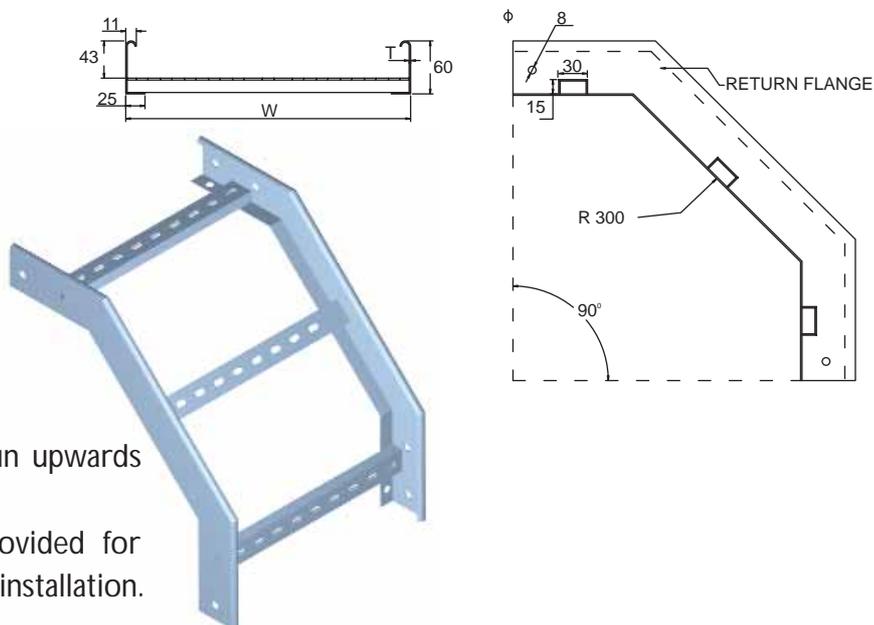
### Note:

Light duty cable ladders and accessories are joined together by connectors. For details refer page 93.  
Bonding jumper are used for earthing connectivity of ladder refer page 107.  
For Accessory Covers and clamps refer page 144.

## LIGHT DUTY METAL CABLE LADDERS

### LDL - EXTERNAL RISER - 30° / 45° / 60° / 90°

PART REF
LDL / ERL / 100 / A / Finish
LDL / ERL / 150 / A / Finish
LDL / ERL / 225 / A / Finish
LDL / ERL / 300 / A / Finish
LDL / ERL / 450 / A / Finish
LDL / ERL / 600 / A / Finish



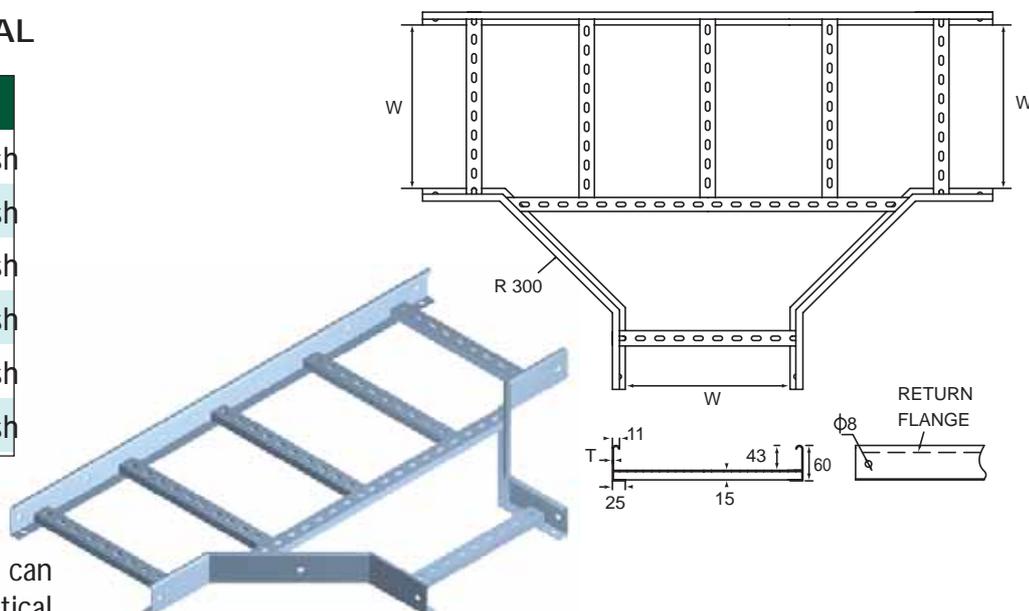
Riser are used were cables have to run upwards or downwards from their orientation.

Expansion Connectors have been provided for light duty ladders for flexible and easy installation. Refer page 106.

Adjustable Riser for LD Ladders are produced on request and is specified by LDL / ARL / WIDTH / FINISH

### LDL - TEE HORIZONTAL

PART REF
LDL / THL / 100 / A / Finish
LDL / THL / 150 / A / Finish
LDL / THL / 225 / A / Finish
LDL / THL / 300 / A / Finish
LDL / THL / 450 / A / Finish
LDL / THL / 600 / A / Finish



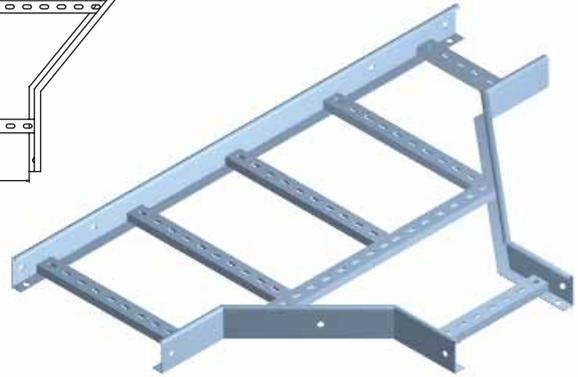
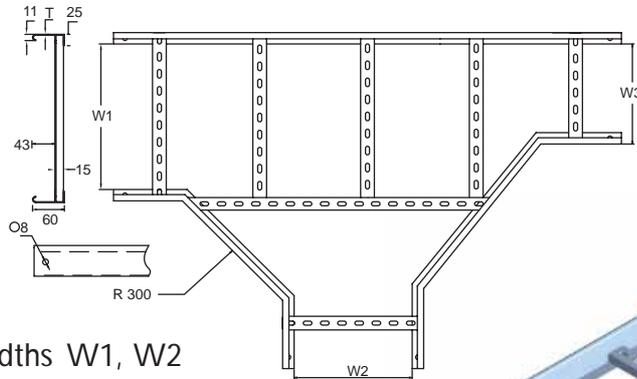
LDL ladders and accessories can be joined by adjustable vertical connectors to function as risers depending on site application. For details refer to page 105.

**Note:** For special sizes, gauges, flanges, consult our sales team, factory.  
To order the suitable fittings for installation, please refer LDL fittings an page 104 of this manual.

# LIGHT DUTY METAL CABLE LADDERS

## LDL - UN-EQUAL TEE

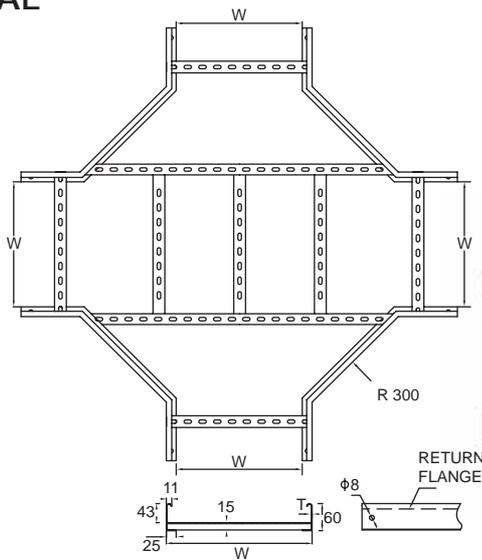
PART REF
LDL/UTHL/W1/W2/W3 Finish



For Un-Equal Tee consider widths W1, W2 and W3 in anti-clockwise as shown in figure. Thickness to be followed of the larger size. Refer page 92.

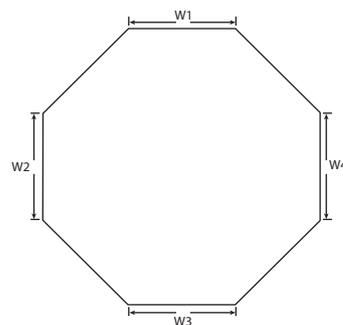
## LDL - CROSS HORIZONTAL

PART REF
LDL / CHL / 100 / Finish
LDL / CHL / 150 / Finish
LDL / CHL / 225 / Finish
LDL / CHL / 300 / Finish
LDL / CHL / 450 / Finish
LDL / CHL / 600 / Finish



## LDL - UN EQUAL CROSS

PART REF
LDL/UCHL/W1/W2/W3/W4/ Finish



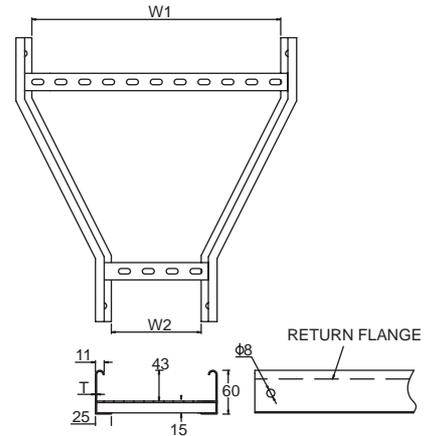
For Un-Equal cross consider widths in anti-clockwise as shown in figure. Thickness to be followed of the larger size. Refer page 92.

**Note:** *Un-Equal Tee/Cross can be used in places to accomodate ladders of different widths at one location.*

# LIGHT DUTY METAL CABLE LADDERS

## LDL - REDUCER STRAIGHT

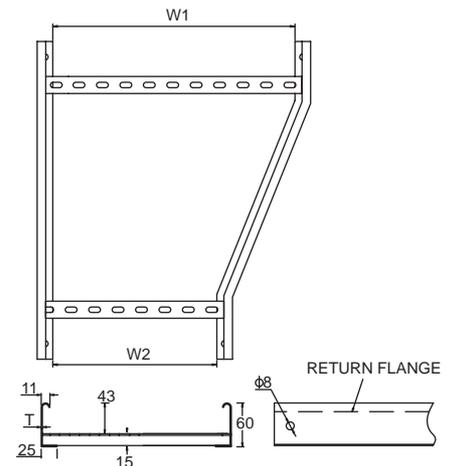
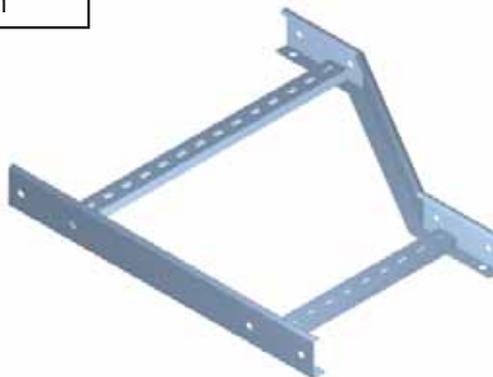
<b>PART REF</b>
LDL/RSL/W1/W2/Finish



Reducing connectors can also be used as reducers depending on site application. For details refer page 105.

## LDL - REDUCER RIGHT

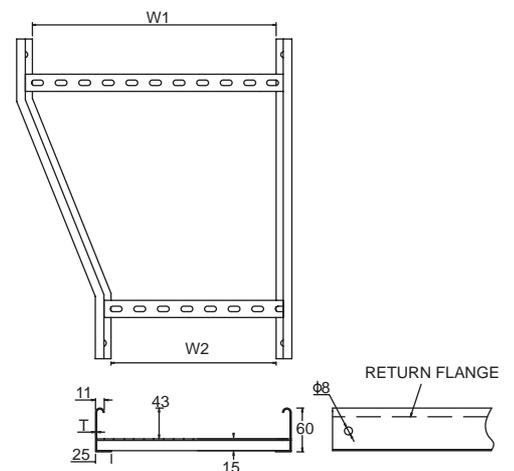
<b>PART REF</b>
LDL/RRL/W1/W2/Finish



Reducer left / right are used where ladders have the limitation on run either left or right side

## LDL- REDUCER LEFT

<b>PART REF</b>
LDL/RLL/W1/W2/Finish



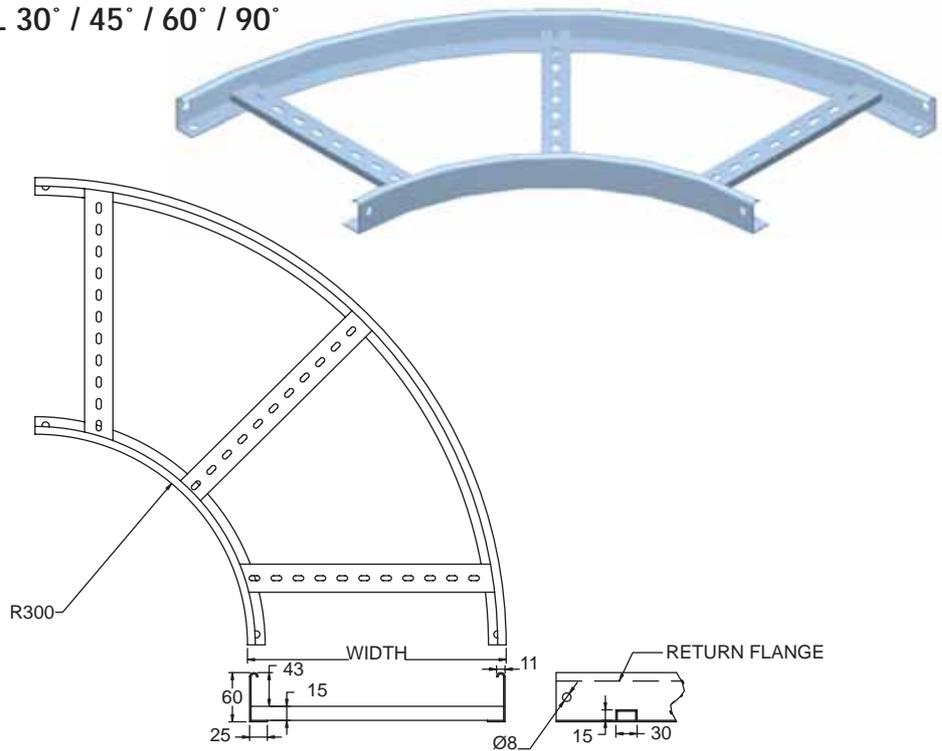
**Note:** Thickness of the reducer to be followed of larger size. For details refer page 92.

## LDL - ELBOW HORIZONTAL 30° / 45° / 60° / 90°

### PART REF

LDL / EHLR / 100 / A / Finish
LDL / EHLR / 150 / A / Finish
LDL / EHLR / 225 / A / Finish
LDL / EHLR / 300 / A / Finish
LDL / EHLR / 450 / A / Finish
LDL / EHLR / 600 / A / Finish

For Thickness, Widths, Rungs and Finish details, refer page 92

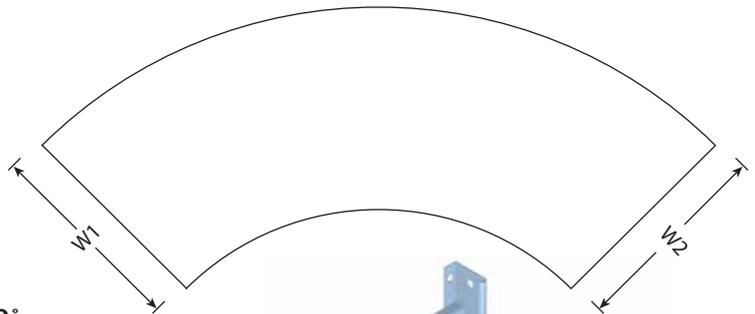


## LDL-UNEQUAL ELBOW

### PART REF

LDL/UEHLR/W1/W2/A/Finish
--------------------------

For Un Equal Elbow, specify width W1 and W2 as shown. Thickness for elbow to be followed of the larger size. For details refer page 92.



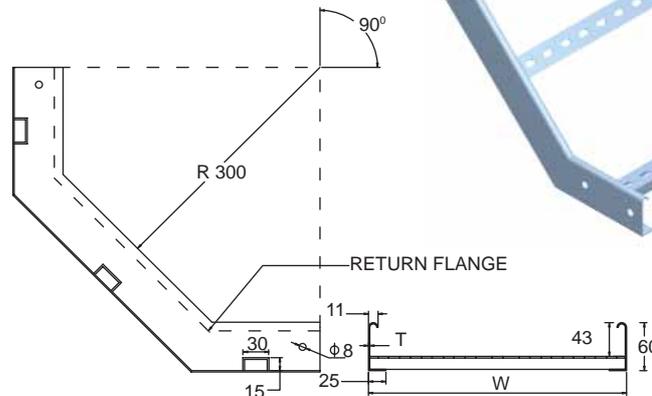
## LDL - INTERNAL RISER - 30° / 45° / 60° / 90°

### PART REF

LDL / IRLR / 100 / A / Finish
LDL / IRLR / 150 / A / Finish
LDL / IRLR / 225 / A / Finish
LDL / IRLR / 300 / A / Finish
LDL / IRLR / 450 / A / Finish
LDL / IRLR / 600 / A / Finish

### Note:

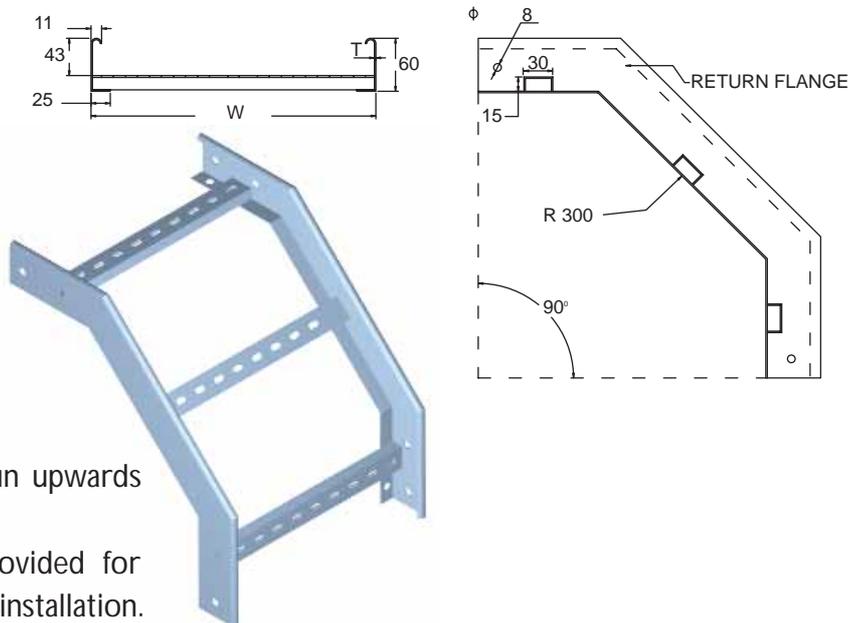
Light duty cable ladders and accessories are joined together by connectors. For details refer page 93.  
Bonding jumper are used for earthing connectivity of ladder refer page 107.  
Round Radial Accessory Covers can be produced on request. For details refer page 147.



# LIGHT DUTY METAL CABLE LADDERS ROUND RADIAL ACCESSORIES

## LDL - EXTERNAL RISER - 30° / 45° / 60° / 90°

PART REF
LDL / ERLR / 100 / A / Finish
LDL / ERLR / 150 / A / Finish
LDL / ERLR / 225 / A / Finish
LDL / ERLR / 300 / A / Finish
LDL / ERLR / 450 / A / Finish
LDL / ERLR / 600 / A / Finish



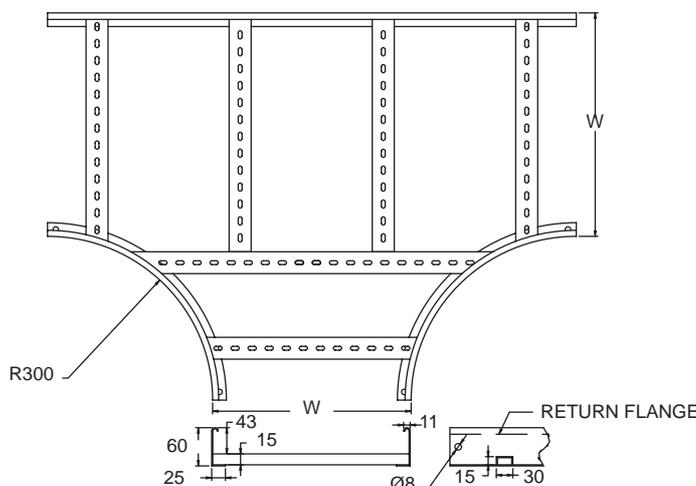
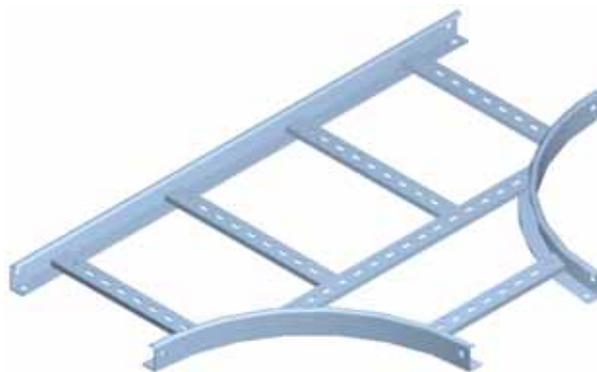
Riser are used were cables have to run upwards or downwards from their orientation.

Expansion Connectors have been provided for light duty ladders for flexible and easy installation. Refer page 106.

Adjustable Riser for LD Ladders are produced on request and is specified by LDL / ARLR / Width / Finish

## LDL - TEE HORIZONTAL

PART REF
LDL / THLR / 100 / A / Finish
LDL / THLR / 150 / A / Finish
LDL / THLR / 225 / A / Finish
LDL / THLR / 300 / A / Finish
LDL / THLR / 450 / A / Finish
LDL / THLR / 600 / A / Finish



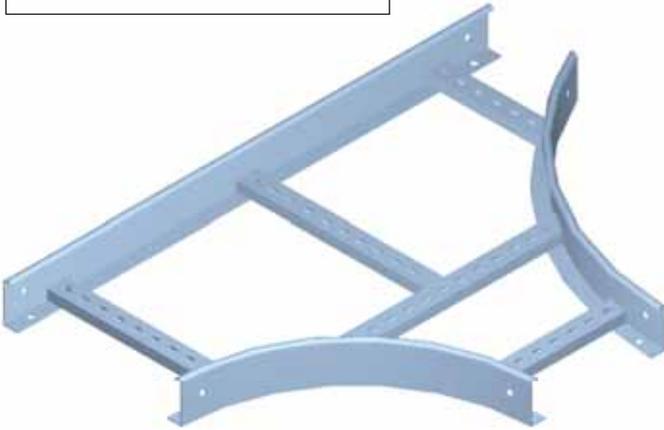
LDL ladders and accessories can be joined by adjustable vertical connectors to function as risers depending on site application. For details refer to page 105.

**Note:** For special sizes, gauges, flanges, consult our sales team, factory.  
To order the suitable fittings for installation, please refer LDL fittings an page 104 of this manual.  
LDL Round Radial Accessories are joined by connectors. For details refer page93.

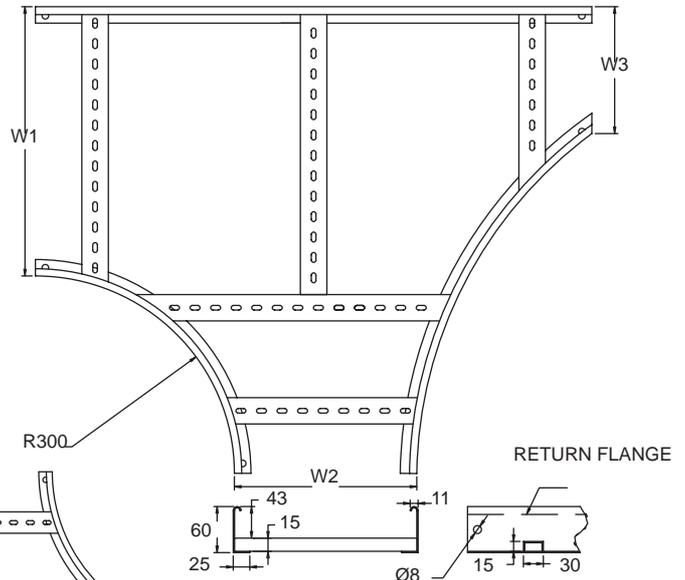
## LDL - UN-EQUAL TEE

### PART REF

LDL/UTHLR/W1/W2/W3 Finish



For Un-Equal Tee consider widths W1, W2 and W3 in anti-clockwise as shown in figure. Thickness to be followed of the larger size. Refer page 92.



## LDL - CROSS HORIZONTAL

### PART REF

LDL / CHLR / 100 / Finish

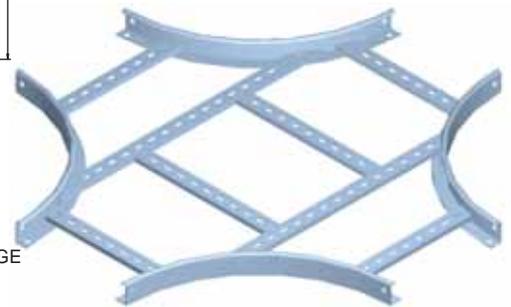
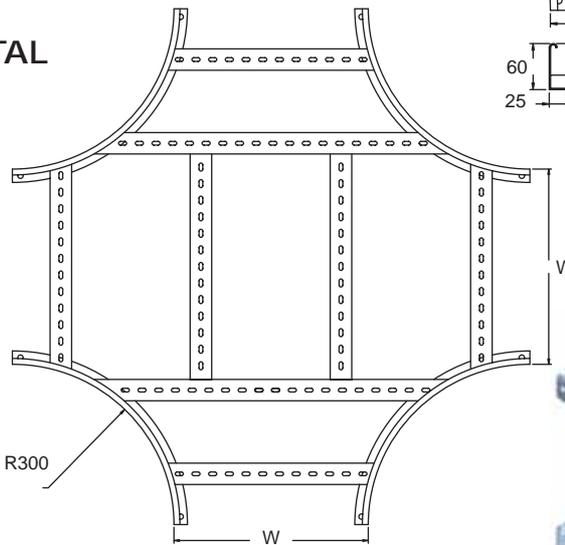
LDL / CHLR / 150 / Finish

LDL / CHLR / 225 / Finish

LDL / CHLR / 300 / Finish

LDL / CHLR / 450 / Finish

LDL / CHLR / 600 / Finish

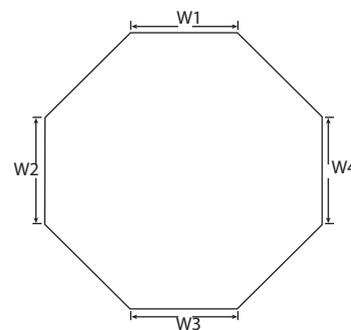


## LDL - UN EQUAL CROSS

### PART REF

LDL/UCHLR/W1/W2/W3/W4/ Finish

For Un-Equal cross consider widths in anti-clockwise as shown in figure. Thickness to be followed of the larger size. Refer page 92.



- Notes:**
- Un-Equal Tee/Cross can be used in places to accommodate ladders of different widths at one location.
  - For LDL Round Radial Accessories fitting details, refer page 104
  - Round Radial Accessories can be joined by connectors. For details refer page 93.
  - For LDL Reducer details, refer page 98.

# LIGHT DUTY METAL CABLE LADDERS

## WEIGHT OF THE COMPONENTS

### LDL - CABLE LADDERS

WIDTH(mm)	WT. (Kgs.)
100	8.713
150	9.201
225	9.964
300	10.695
450	12.222
600	13.706

### FLANGE CONNECTOR

WIDTH(mm)	WT. (Kgs.)
100 to 600	0.330

### COVERS FOR STRAIGHT LENGTHS

WIDTH(mm)	WT. (Kgs.)
100	3.328
150	4.643
225	6.614
300	8.586
450	15.020
600	19.748

### LDL - ELBOW HORIZONTAL

WIDTH WEIGHT IN KGS.		
(mm)	45°	90°
100	1.018	1.813
150	1.198	2.067
225	1.473	2.459
300	1.738	2.841
450	2.512	4.102
600	3.424	5.629

### LDL - EXTERNAL RISER

WIDTH WEIGHT IN KGS.		
(mm)	45°	90°
100	1.049	1.876
150	1.208	2.088
225	1.367	2.258
300	1.569	2.512
450	1.929	2.936
600	2.300	3.371

### LDL - TEE HORIZONTAL

WIDTH(mm)	WT. (Kgs.)
100	3.053
150	3.318
225	3.699
300	4.092
450	5.364
600	6.943

### LDL - CROSS HORIZONTAL

WIDTH(mm)	WT. (Kgs.)
100	4.251
150	4.579
225	5.077
300	5.629
450	7.144
600	8.946

### LDL - INTERNAL RISER

WIDTH WEIGHT IN KGS.		
(mm)	45°	90°
100	1.049	1.876
150	1.208	2.088
225	1.367	2.258
300	1.569	2.512
450	1.929	2.936
600	2.300	3.371

## LIGHT DUTY CABLE LADDER FITTINGS

Light duty cable ladder fittings are produced to suit different and complexed installations of light duty ladder system only.

### STANDARD FINISHES

HDG	Hot dip Galvanized to BS EN ISO 1461:1999 (Formerly BS 729)
PG	Pre-galvanized to BS EN 10142 & 10143
PC	Powder Coating to suit clients requirements
SS	Stainless steel finish to required grades

### TYPES

- LDL : Light Duty Ladder
- MDL : Medium Duty Ladder
- HDL : Heavy Duty Ladder
- XDL : Extra Heavy Duty Ladder

### ORDER PATTERN

To select the required component, please specify the component, type width & finish.

#### EXAMPLE FOR BOX CONNECTOR

COMPONENT / TYPE / WIDTH / FINISH      BXC / LDL / WIDTH / HDG

For support system for the installation, please refer Metal strut framing system of this manual

**Note:** *For special finishes consult our sales team, factory*

*For special sizes, gauges, flanges, consult our sales team, factory*



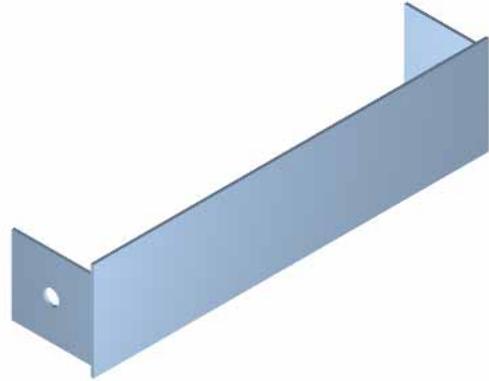
## LIGHT DUTY CABLE LADDER FITTINGS

### BLIND END

#### PART REF

BEL / LDL / Width / Finish

Standard thickness of blind ends for LDL system is 1.5 mm. Roofing bolt M6 x 12 nuts and washers are used for fastening.

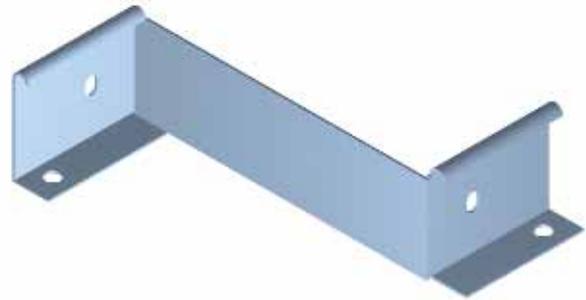


### REDUCING CONNECTOR

#### PART REF

RCL / LDL / W1-W2 / Finish

Standard thickness of Reducing Connector for LDL system is 2.0 mm. Roofing bolt M6 x 12 nuts and washers are used for fastening.

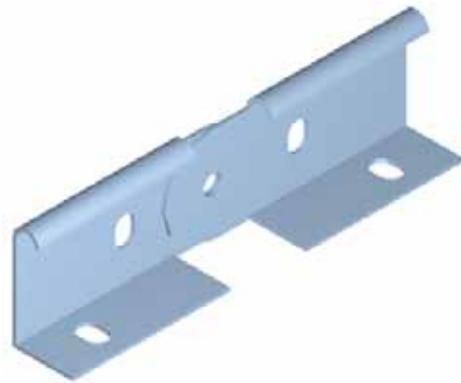


### ADJUSTABLE VERTICAL CONNECTOR

#### PART REF

AVCL / LDL / Finish

Standard thickness of Adjustable Vertical Connector for LDL system is 2.0 mm. Carriage bolt M8 x 16 is used to join two pieces of connectors and Roofing Bolt M6 x 12 nuts and washers are used for connection with ladders.

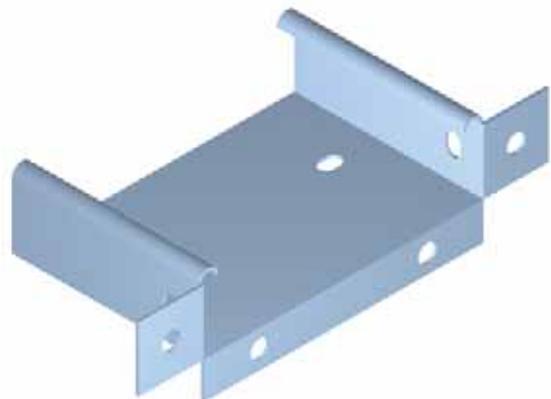


### BOX CONNECTOR

#### PART REF

BXCL / LDL / Width / Finish

Standard thickness of Box Connector for LDL system is 2.0 mm. Roofing bolt M6 x 12 nuts and washers are used for fastening.



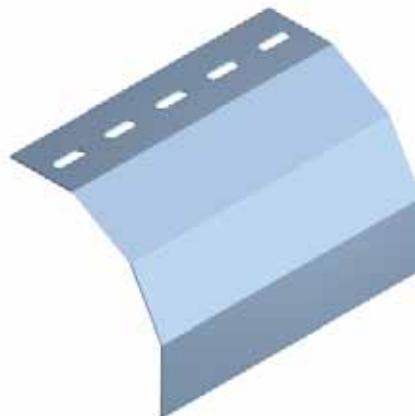
## LIGHT DUTY CABLE LADDER FITTINGS

### DROP OUT

#### PART REF

DOL / LDL / Width / Finish

Standard thickness of Drop out for LDL system is 2.0 mm. Roofing bolt M6 x 12 nuts and washers are used for fastening.

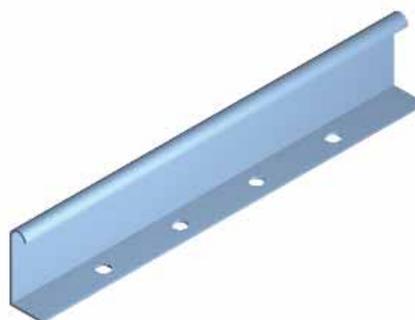


### BARRIER STRAIGHT

#### PART REF

BSL / LDL / Finish

Standard thickness of Barrier Straight for LDL system is 1.5 mm. Barrier Straights are produced in 3 mtr length and roofing bolt M6 x 12 nuts and washers are used for fastening.



### HOLD DOWN BRACKET

#### PART REF

HDBL / LDL / Finish

Standard thickness of Hold down bracket for LDL system is 2.0 mm. Hexagonal bolt M8 x 20 nuts and washers are used for fastening. Spring nuts can also be used depending on site application.

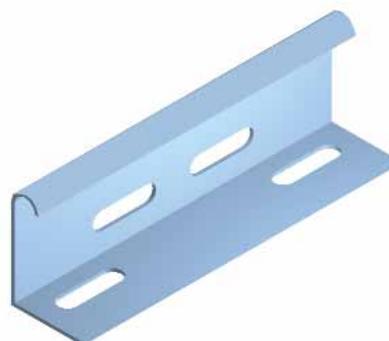


### EXPANSION CONNECTOR

#### PART REF

EXCL / LDL / Finish

Standard thickness of Expansion Connector for LDL system is 2.0 mm. Roofing bolt M6 x 12 nuts and washers are used for fastening. Expansion connectors are produced with M8x28 slots to give the installer ease of installation on site.





## LIGHT DUTY CABLE LADDER FITTINGS

### BONDING JUMPER

PART REF
BJL

AREA : 16 mm<sup>2</sup>  
LENGTH : 145 mm from center to center

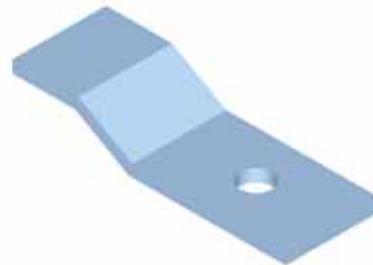
Bonding Jumper for Cable Ladder earthing connectivity is produced from braided tinned copper with M8 copper lugs on both sides. Roofing bolts M6 x 12 , nuts & washers are used for fastening. To be ordered separately.



### HOLD DOWN CLAMP

PART REF
HDCL / LDL / Finish

Standard thickness of Hold down clamp for LDL system is 5.0 mm. Hexagonal bolt M8 x 25 nuts and washers are used for fastening.



### MOUNTING PLATE

PART REF
MP / LDL / Width / Finish

Standard thickness of Mounting Plates for LDL system is 2.0 mm. Mounting Plates are used for installation of light electrical equipments on a cable ladder run. Roofing bolt M6 x 12 nuts and washers are used for fastening.



### RIGHT ANGLE CONNECTOR

PART REF
RACL / LDL / Finish

Standard thickness of Right Angled Connector for LDL system is 2.0 mm. Roofing bolt M6 x 12 nuts and washers are used for fastening.



## MEDIUM DUTY METAL CABLE LADDERS

### FOR STRAIGHT LENGTHS AND ACCESSORIES

Range / Width (W)	Thickness (T)	Side Height (H)	Usable Height
All dimensions are in mm			
150 to 600	1.5	100	75
750 to 1000	2.0	100	75

### STANDARD FINISHES

HDG	Hot dip Galvanized to BS EN ISO 1461:1999 (Formerly BS 729)
PG	Pre-galvanized to BS EN 10142 & 10143
PC	Powder Coating to suit clients requirements
SS	Stainless steel finish to required grades

- Medium duty cable ladders are produced in a standard length of 3 mtrs but can be produced in different lengths on request.
- Medium duty cable ladders are produced above 150mm only. MDL are provided with outside flanges to provide rigidity and strength to the ladder.
- Medium duty cable ladder accessories are produced to standard radius of 300 mm but can be produced in 450 mm, 600mm and 900 mm as required.
- Accessory cover details are provided at the end of cable ladder chapter.

### COVERS FOR STRAIGHT LENGTHS AND ACCESSORIES

Range / Width (W)	Thickness (T)	Side Height (H)
All dimensions are in mm		
150 to 300	1.0	11
450 to 600	1.2	11
750 to 1000	1.5	11

### RUNG DETAILS

Range / Width (W)	Thickness (T)
All dimensions are in mm	
150 to 600	1.5
750 to 1000	2.0

#### RUNG SPACING

The standard rung spacing is 300mm. Optional Rung spacing 150mm, 250mm.

### ORDER PATTERN

To select the required component, please specify the type, component, width, finish. Angles can be mentioned wherever necessary.

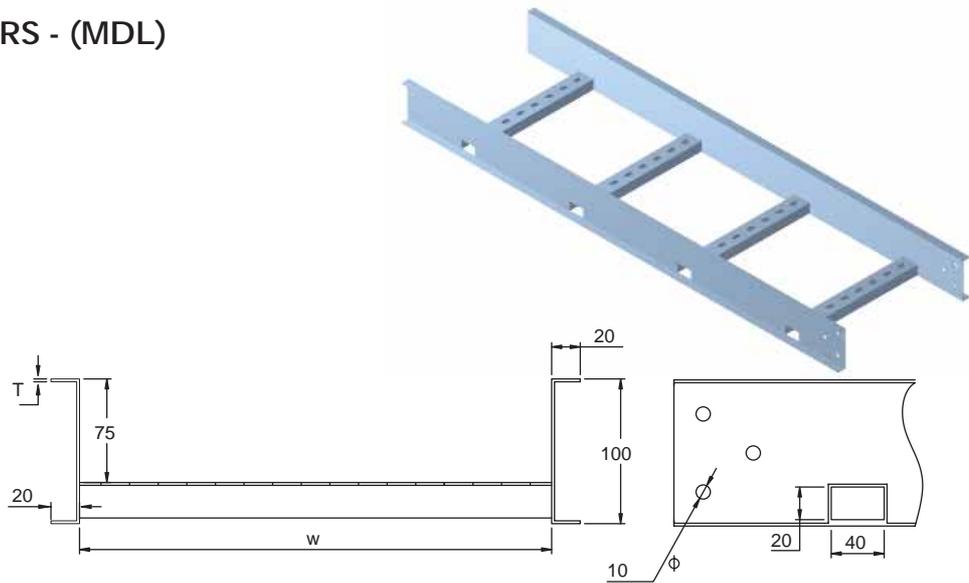
#### EXAMPLE:

TYPE / COMPONENT / WIDTH / FINISH ( without angle) MDL / COM / WIDTH / HDG  
 TYPE / COMPONENT / WIDTH / ANGLE / FINISH ( with angle) MDL / COM / WIDTH / A / HDG

Note: For special sizes, gauges, flanges, consult our sales team, factory  
 Standard rungs for the light duty ladder are slotted type.

## MEDIUM DUTY LADDERS - (MDL)

PART REF
MDL / CL / 150 / Finish
MDL / CL / 225 / Finish
MDL / CL / 300 / Finish
MDL / CL / 450 / Finish
MDL / CL / 600 / Finish
MDL / CL / 750 / Finish
MDL / CL / 900 / Finish
MDL / CL / 1000 / Finish



Medium duty ladder are produced with outside flange for medium duty applications.

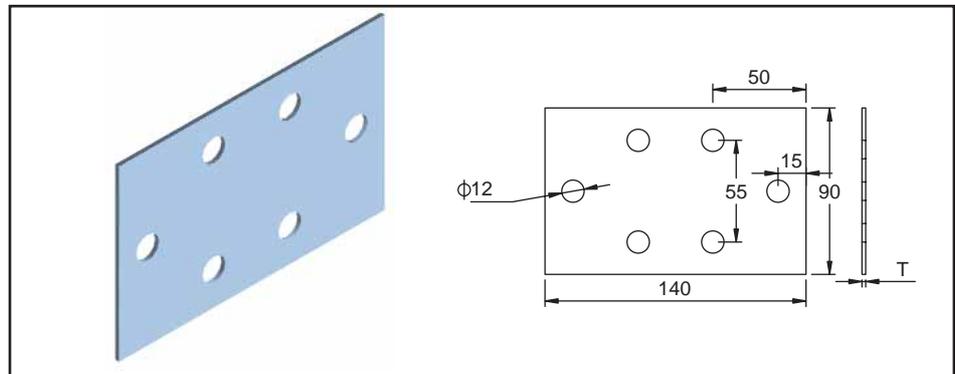
### CONNECTORS

Medium duty cable ladders are joined together by connectors. MD Cable ladders are produced with straight connectors. Connectors are supplied in pairs with a set of M8 x 16 carriage bolts, nuts and washers. To be ordered separately.

### CONNECTORS

PART REF
MDL / SCL / Finish

Width (mm)	Thickness (mm)
150 to 1000	2.0

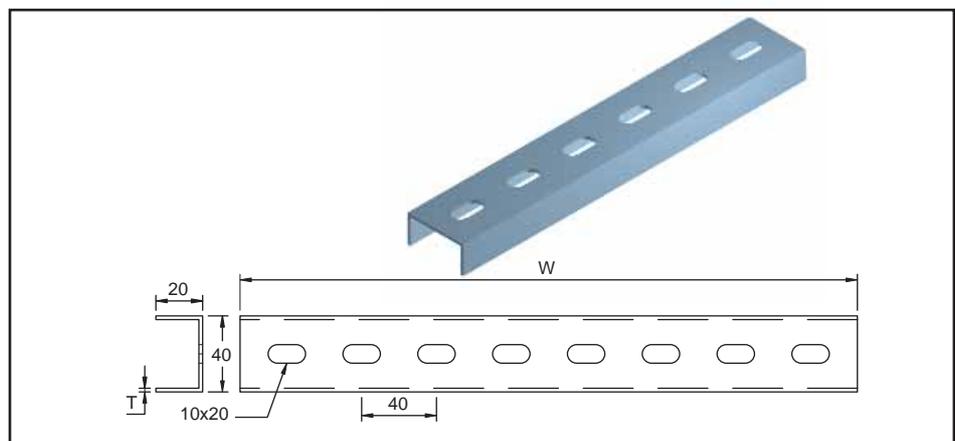


### RUNGS

Standard rungs for the Medium duty ladder are slotted C - type.

### Rung Spacing

The standard rung spacing is 300mm. Optional Rung spacing 150mm, 250mm.

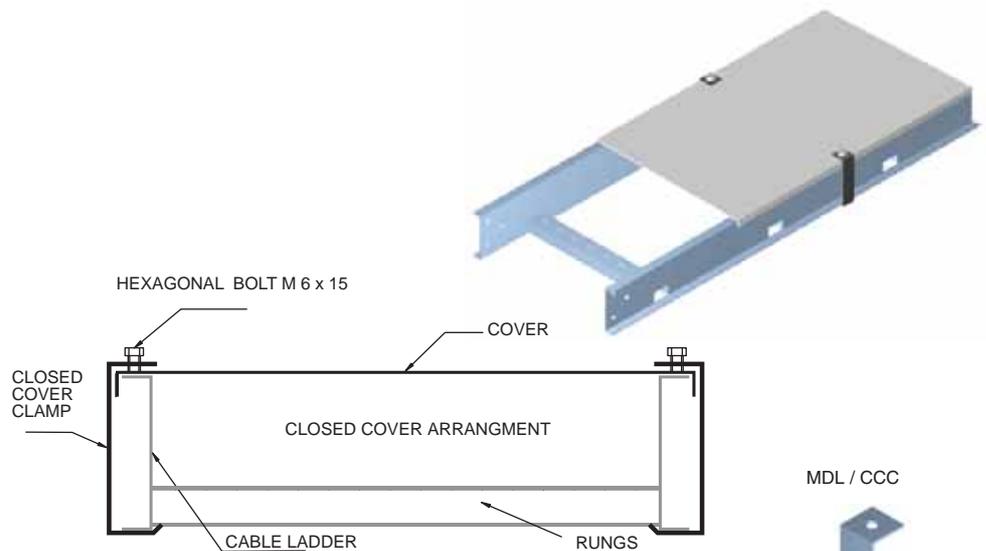


**Note:** Expansion connectors are also provided to ease the installation process on site. For details refer page 153.

# MEDIUM DUTY METAL CABLE LADDERS

## CABLE LADDER CLOSED COVERS

PART REF
MDL / CLCC / 150 / Finish
MDL / CLCC / 225 / Finish
MDL / CLCC / 300 / Finish
MDL / CLCC / 450 / Finish
MDL / CLCC / 600 / Finish
MDL / CLCC / 750 / Finish
MDL / CLCC / 900 / Finish
MDL / CLCC / 1000 / Finish



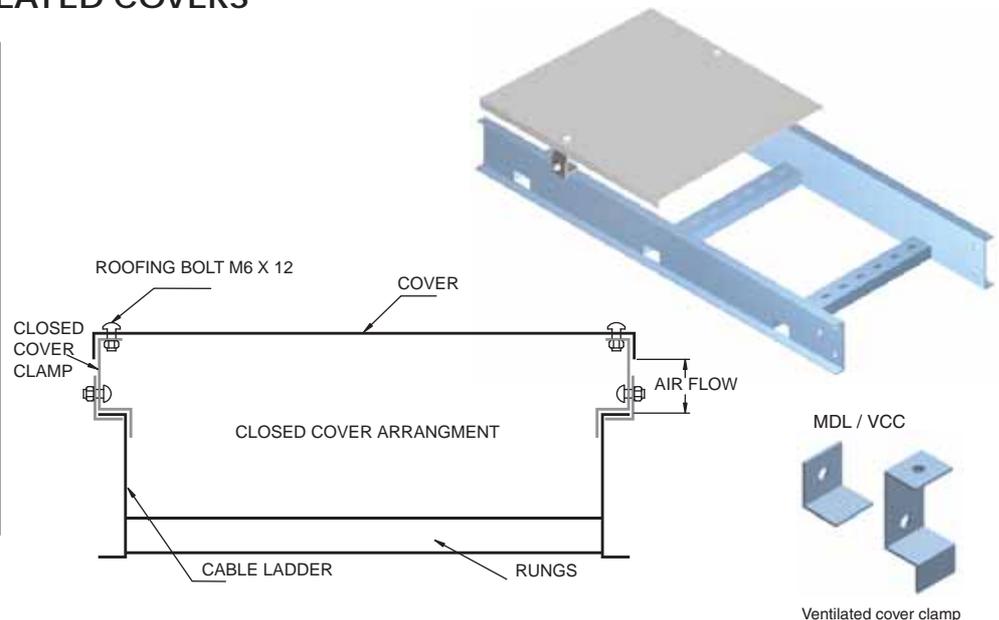
### CLOSED COVER CLAMP

Screw type closed cover clamp MDL / CCC is supplied in 3mm thickness for closed cover arrangement with the set of M6 x 15 hexagonal bolt & washer. To be ordered separately.

Screw type closed cover clamp

## CABLE LADDER VENTILATED COVERS

PART REF
MDL / CLVC / 150 / Finish
MDL / CLVC / 225 / Finish
MDL / CLVC / 300 / Finish
MDL / CLVC / 450 / Finish
MDL / CLVC / 600 / Finish
MDL / CLVC / 750 / Finish
MDL / CLVC / 900 / Finish
MDL / CLVC / 1000 / Finish



### VENTILATED COVER CLAMP

Ventilated cover clamp MDL / VCC is supplied in 2mm thickness for Ventilated cover arrangement with the set of M6 x 12 roofing bolts, nuts & washers. To be ordered separately

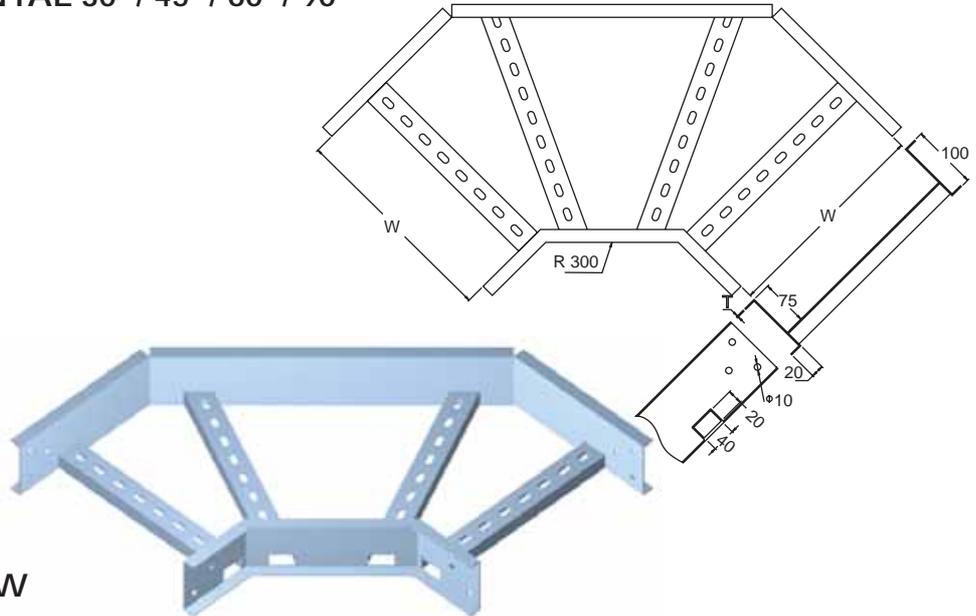
- Covers can be used as closed or ventilated by using an appropriate clamp.
- Covers can be produced with louvers also on request.
- For special sizes, gauges, flanges, consult our sales team, factory.
- For support system for the installation, please refer Metal strut framing system of this manual.

## MEDIUM DUTY METAL CABLE LADDERS

### MDL - ELBOW HORIZONTAL 30° / 45° / 60° / 90°

#### PART REF

MDL / EHL / 150 / A / Finish
MDL / EHL / 225 / A / Finish
MDL / EHL / 300 / A / Finish
MDL / EHL / 450 / A / Finish
MDL / EHL / 600 / A / Finish
MDL / EHL / 750 / A / Finish
MDL / EHL / 900 / A / Finish
MDL / EHL / 1000 / A / Finish

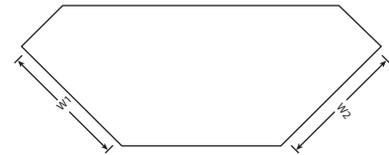


### MDL - UN EQUAL ELBOW

#### PART REF

MDL / UEHL / W1/ W2 / A / Finish
----------------------------------

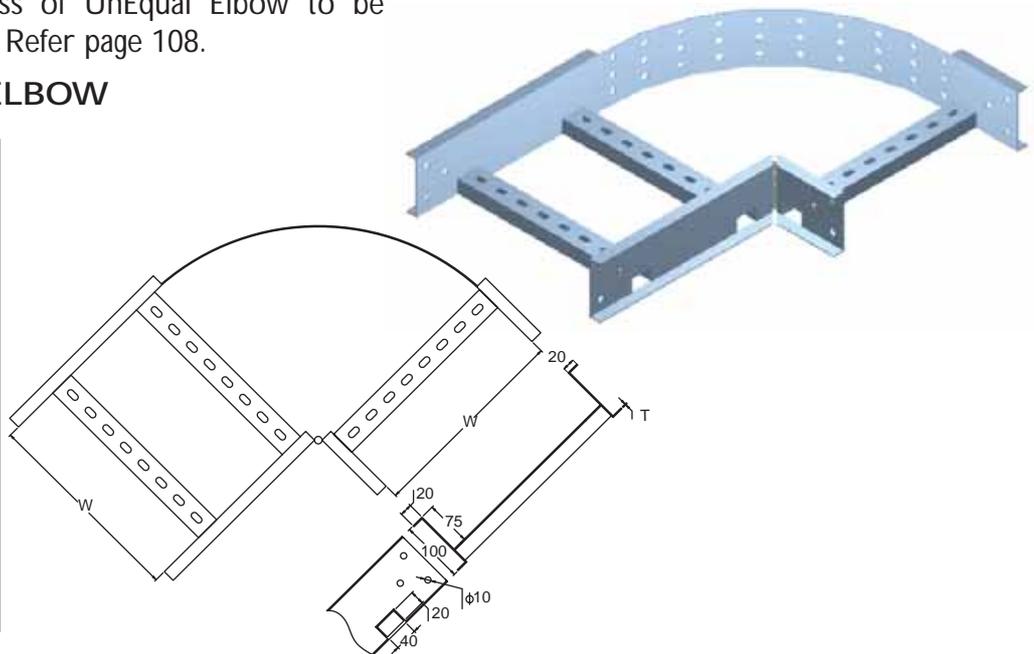
For Un-Equal elbow specify widths W1 and W2 as shown in figure. Thickness of UnEqual Elbow to be followed of the larger size. Refer page 108.



### MDL - ADJUSTABLE ELBOW

#### PART REF

MDL / AEH / 150 / Finish
MDL / AEH / 225 / Finish
MDL / AEH / 300 / Finish
MDL / AEH / 450 / Finish
MDL / AEH / 600 / Finish
MDL / AEH / 750 / Finish
MDL / AEH / 900 / Finish
MDL / AEH / 1000 / Finish



- Adjustable elbow can be used for installation at desired angles depending on site applications.
- Hinged connectors can also be used for installation at desired angles. For details refer to page 154.

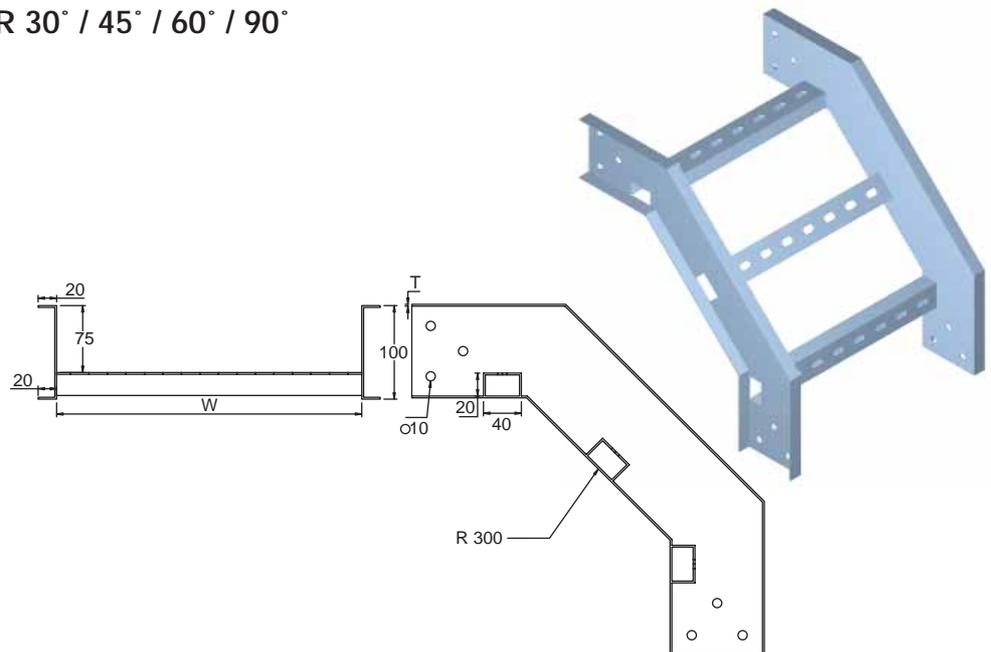
#### Note:

Medium duty cable ladders and accessories are joined together by connectors. For details refer page 108. Bonding jumpers are used for earthing connectivity. Refer to page 154

## MEDIUM DUTY METAL CABLE LADDERS

### MDL - EXTERNAL RISER 30° / 45° / 60° / 90°

PART REF
MDL / ERL / 150 / A / Finish
MDL / ERL / 225 / A / Finish
MDL / ERL / 300 / A / Finish
MDL / ERL / 450 / A / Finish
MDL / ERL / 600 / A / Finish
MDL / ERL / 750 / A / Finish
MDL / ERL / 900 / A / Finish
MDL / ERL / 1000 / A / Finish

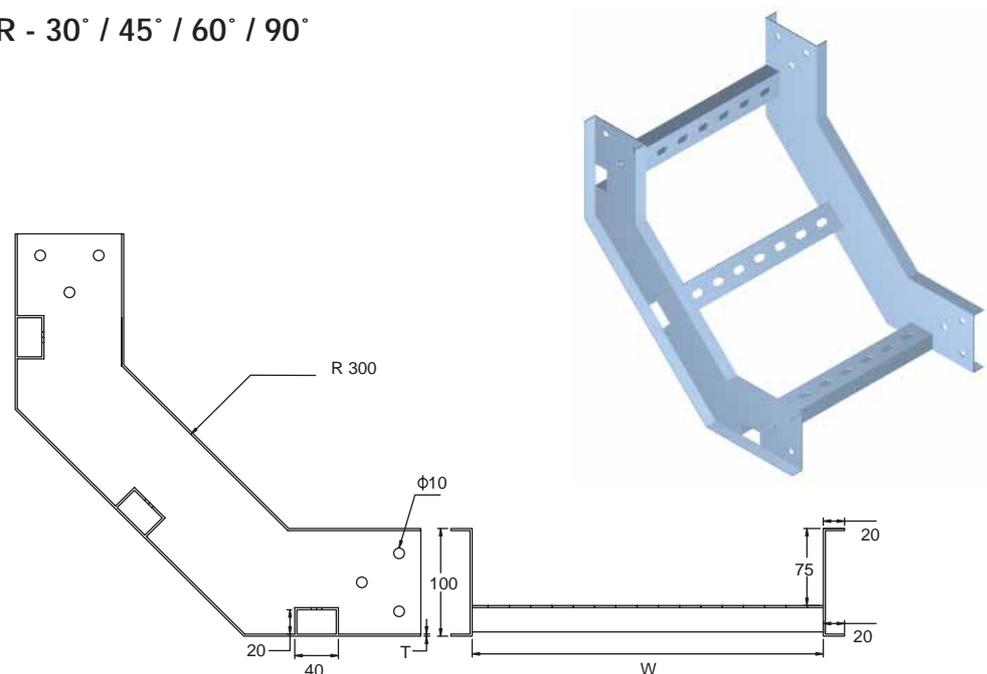


MD Ladders can also be joined by adjustable vertical connector to function as risers. For details refer page 152.

Adjustable Riser for MD Ladders are produced on request and is specified by MDL / ARL / WIDTH / FINISH

### MDL - INTERNAL RISER - 30° / 45° / 60° / 90°

PART REF
MDL / IRL / 150 / A / Finish
MDL / IRL / 225 / A / Finish
MDL / IRL / 300 / A / Finish
MDL / IRL / 450 / A / Finish
MDL / IRL / 600 / A / Finish
MDL / IRL / 750 / A / Finish
MDL / IRL / 900 / A / Finish
MDL / IRL / 1000 / A / Finish



Risers are used where cables have to run upwards and downwards from their orientation.

#### Note:

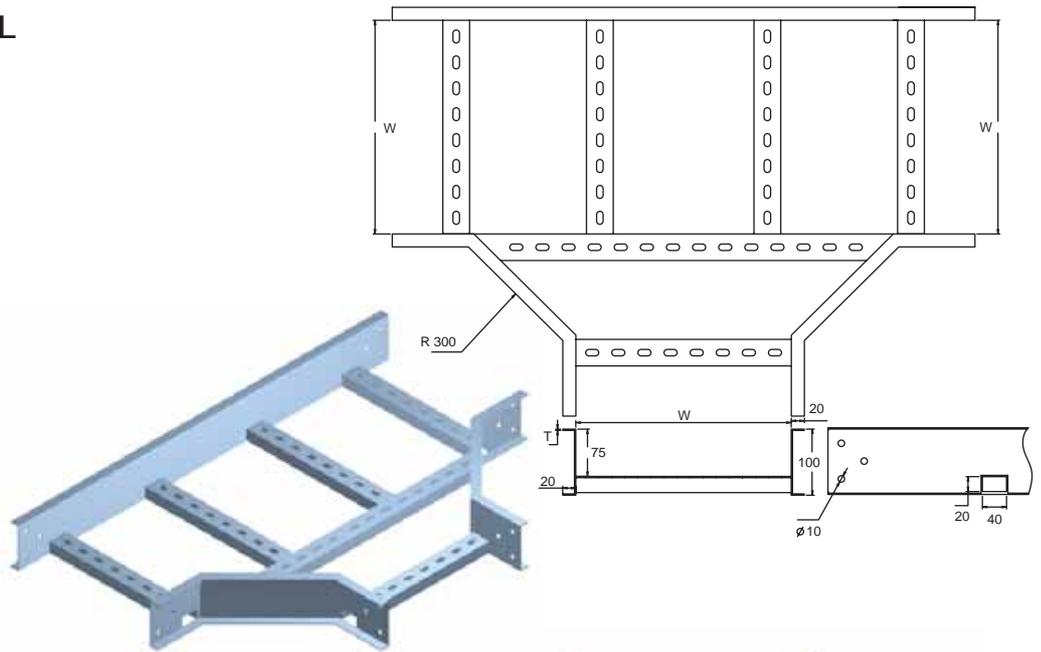
For special sizes, gauges, flanges, consult our sales team, factory.

To order the suitable fittings for installation, please refer cable ladder fittings page 151 of this manual.

# MEDIUM DUTY METAL CABLE LADDERS

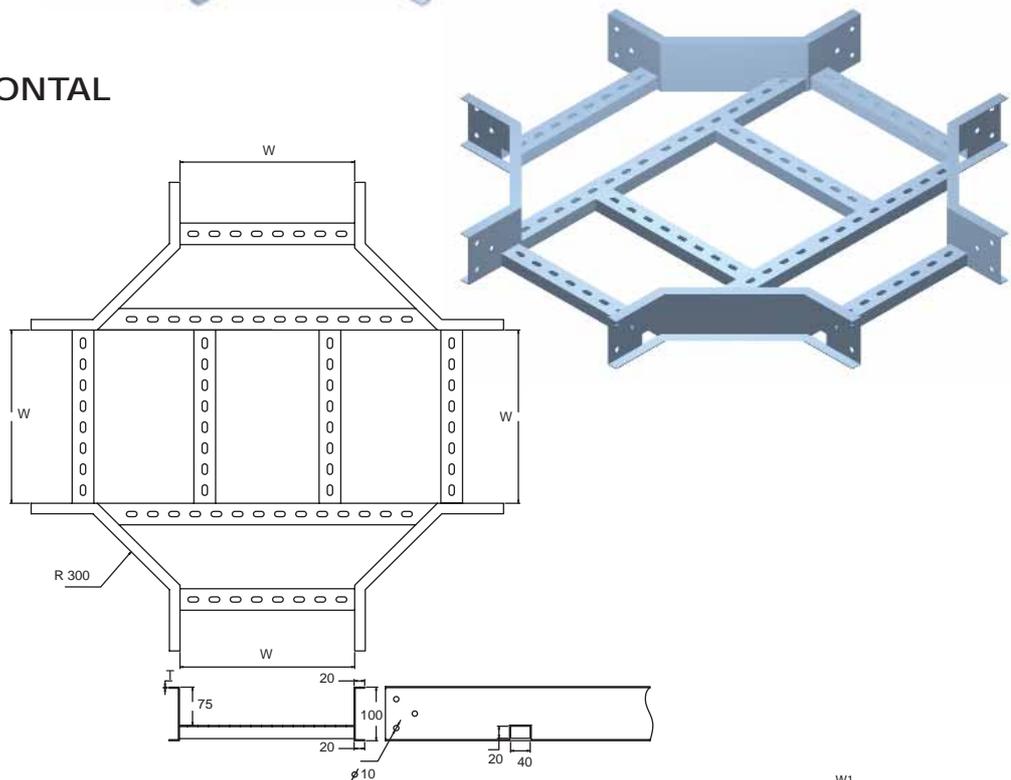
## MDL - TEE HORIZONTAL

PART REF
MDL / THL / 150 / Finish
MDL / THL / 225 / Finish
MDL / THL / 300 / Finish
MDL / THL / 450 / Finish
MDL / THL / 600 / Finish
MDL / THL / 750 / Finish
MDL / THL / 900 / Finish
MDL / THL / 1000 / Finish



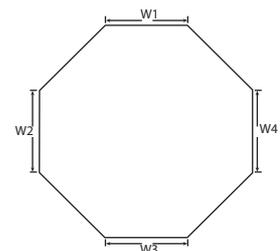
## MDL - CROSS HORIZONTAL

PART REF
MDL / CHL / 150 / Finish
MDL / CHL / 225 / Finish
MDL / CHL / 300 / Finish
MDL / CHL / 450 / Finish
MDL / CHL / 600 / Finish
MDL / CHL / 750 / Finish
MDL / CHL / 900 / Finish
MDL / CHL / 1000 / Finish



## UN-EQUAL CROSS HORIZONTAL

PART REF
MDL / UCHL / W1 / W2 / W3 / W4 / Finish



For Un-Equal Cross consider widths W1/W2/W3/W4 in anticlockwise direction. Thickness of the Unequal Cross to be followed of larger size. Refer page 108.

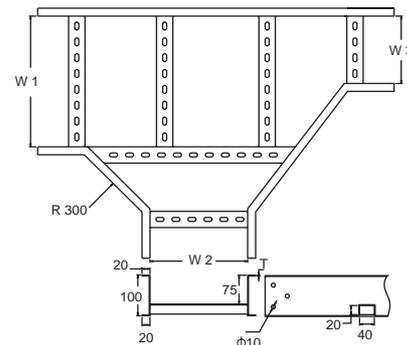
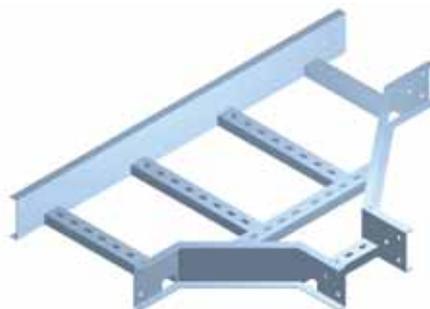
# MEDIUM DUTY METAL CABLE LADDERS

## MDL - UN EQUAL TEE

### PART REF

MDL / UTHL / W1 / W2 / W3 / Finish

For Unequal Tee consider width W1 / W2 / W3 in anticlockwise as shown. Thickness of UTHL to be followed of the larger size. Please refer to page 108.

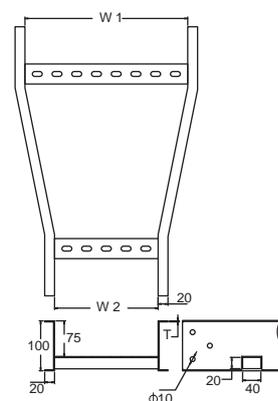
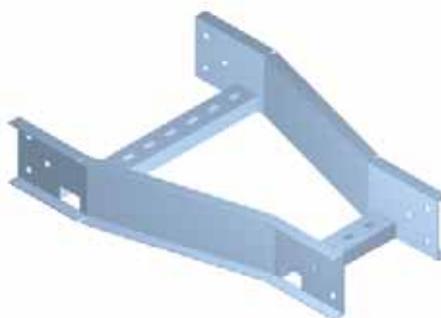


## MDL - REDUCER STRAIGHT

### PART REF

MDL / RSL / W1 / W2 / Finish

Reducing connectors can also be used as reducers depending on site requirements. Refer page 152.

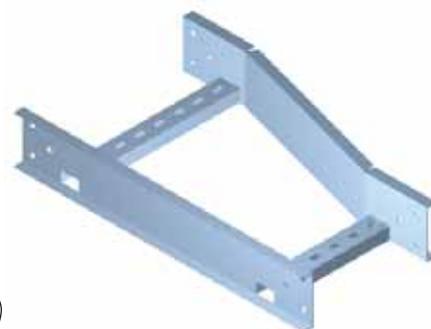
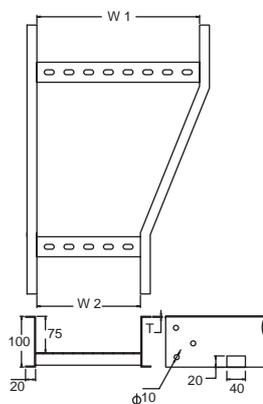


## MDL - REDUCER RIGHT

### PART REF

MDL / RRL / W1 / W2 / Finish

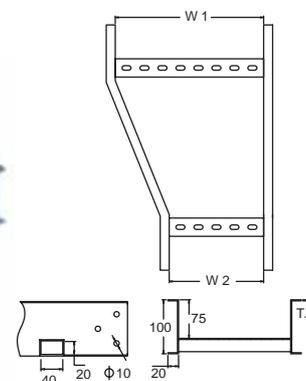
Reducer left/right are used where ladders have a limitation on run either on left or right side



## MDL- REDUCER LEFT

### PART REF

MDL / RLL / W1 / W2 / Finish

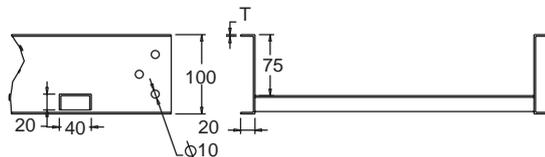
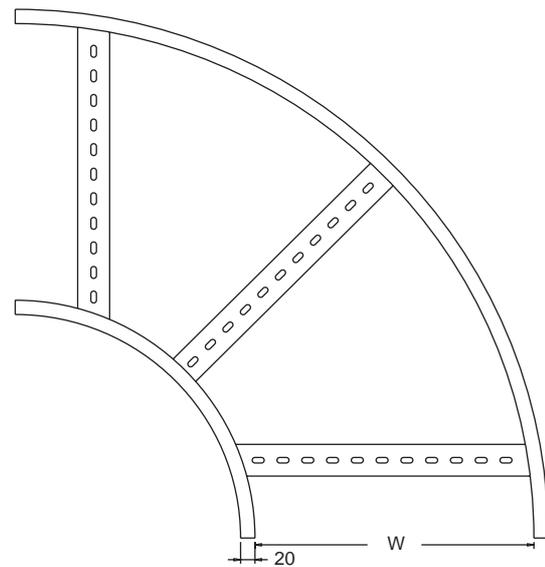
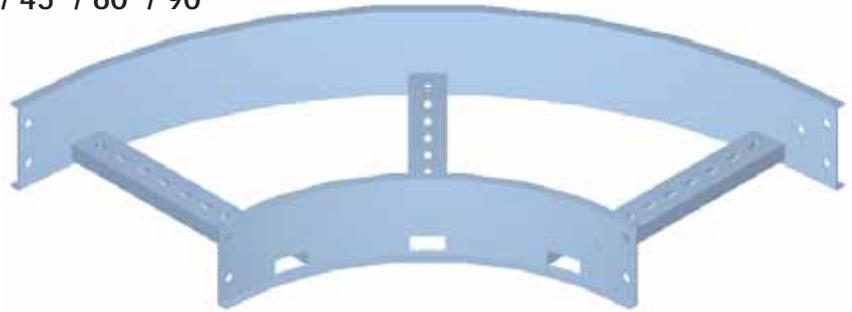


**Note:** Thickness of reducer to be followed of larger size .For details refer to page 108.  
For Accessories Cover details refer to page 144.

## MDL - ELBOW HORIZONTAL 30° / 45° / 60° / 90°

### PART REF

MDL / EHLR / 150 / A / Finish
MDL / EHLR / 225 / A / Finish
MDL / EHLR / 300 / A / Finish
MDL / EHLR / 450 / A / Finish
MDL / EHLR / 600 / A / Finish
MDL / EHLR / 750 / A / Finish
MDL / EHLR / 900 / A / Finish
MDL / EHLR / 1000 / A / Finish

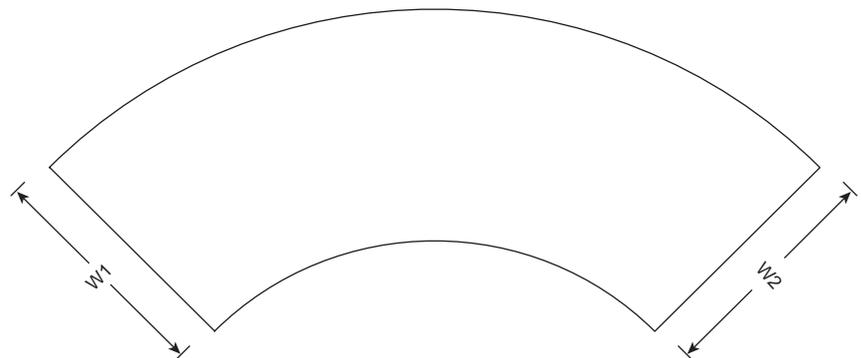


- For Thickness, Rungs, Width and Finish details, refer page 108
- MDL Round Radial Accessories Covers can be produced on request. For details refer page 147.

## MDL - UN EQUAL ELBOW

### PART REF

MDL / UEHLR / W1/ W2 / A / Finish
-----------------------------------



For Un-Equal elbow specify widths W1 and W2 as shown in figure. Thickness of UnEqual Elbow to be followed of the larger size. Refer page 108.

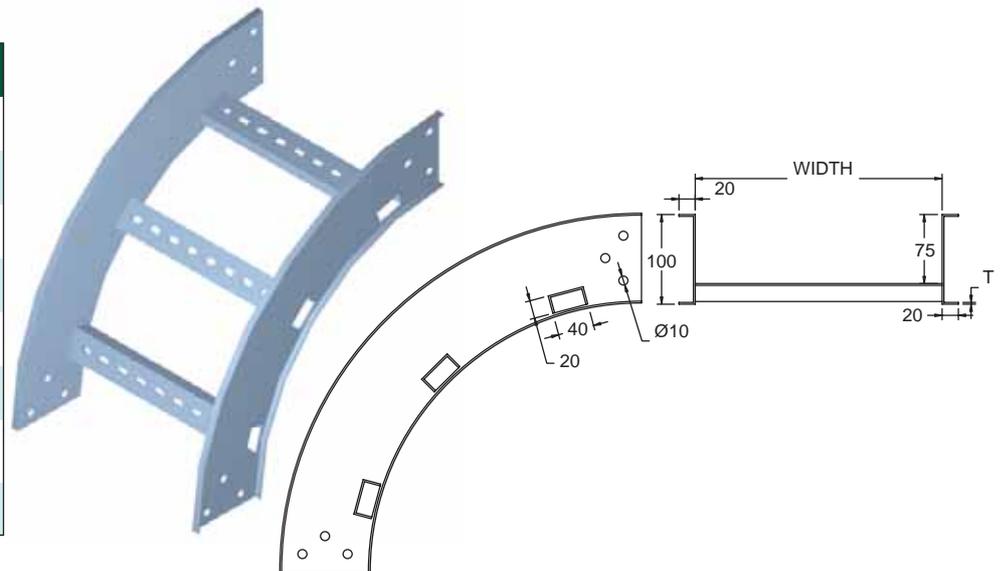
### Note:

Medium duty cable ladders and accessories are joined together by connectors. For details refer page 109. Bonding jumpers are used for earthing connectivity. Refer to page 154.

# MEDIUM DUTY METAL CABLE LADDERS ROUND RADIAL ACCESSORIES

## MDL - EXTERNAL RISER 30° / 45° / 60° / 90°

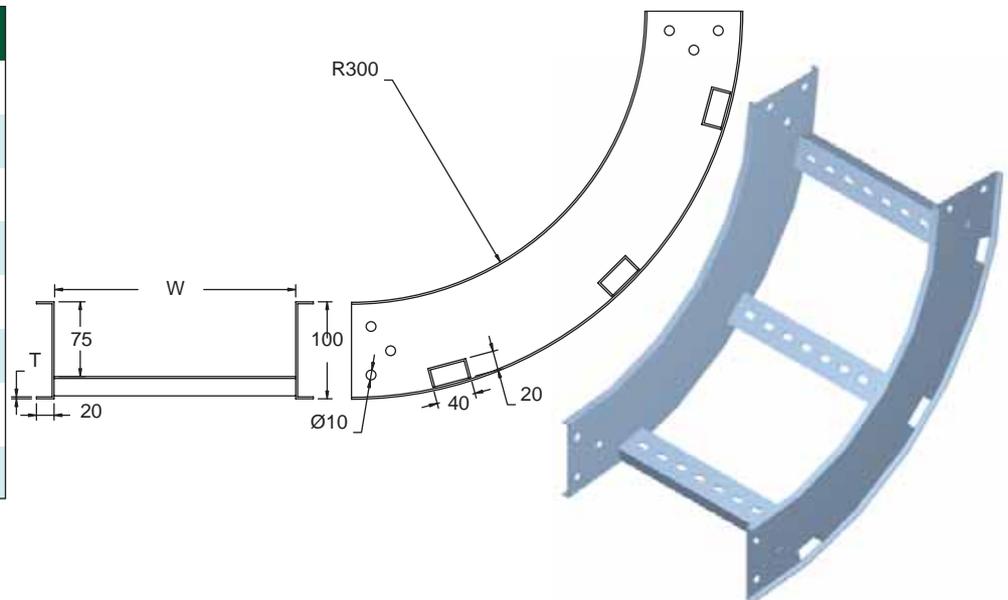
PART REF
MDL / ERLR / 150 / A / Finish
MDL / ERLR / 225 / A / Finish
MDL / ERLR / 300 / A / Finish
MDL / ERLR / 450 / A / Finish
MDL / ERLR / 600 / A / Finish
MDL / ERLR / 750 / A / Finish
MDL / ERLR / 900 / A / Finish
MDL / ERLR / 1000 / A / Finish



MD Ladders can also be joined by adjustable vertical connector to function as risers. For details refer page 152. Adjustable Riser for MD Ladders are produced on request and is specified by MDL / ARL / WIDTH / FINISH

## MDL - INTERNAL RISER - 30° / 45° / 60° / 90°

PART REF
MDL / IRLR / 150 / A / Finish
MDL / IRLR / 225 / A / Finish
MDL / IRLR / 300 / A / Finish
MDL / IRLR / 450 / A / Finish
MDL / IRLR / 600 / A / Finish
MDL / IRLR / 750 / A / Finish
MDL / IRLR / 900 / A / Finish
MDL / IRLR / 1000 / A / Finish



Risers are used where cables have to run upwards and downwards from their orientation. Round Radial Accessories can be joined by connectors. For details refer page 109

### Note:

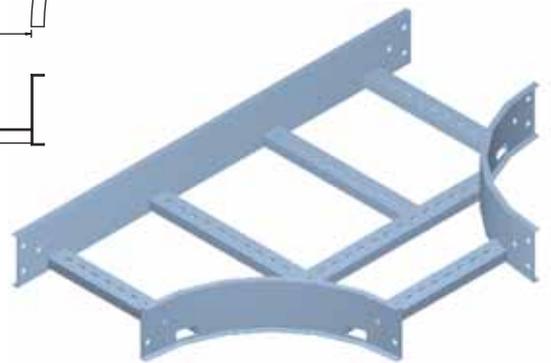
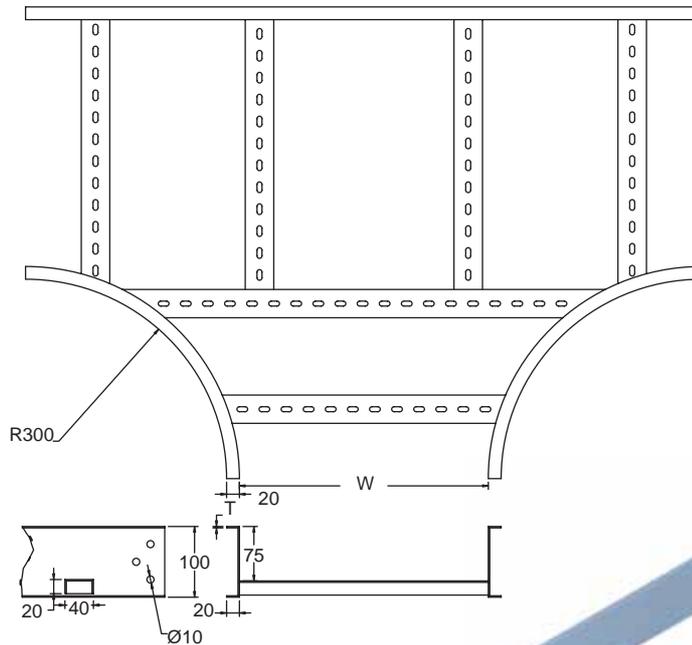
*For special sizes, gauges, flanges, consult our sales team, factory.*

*To order the suitable fittings for installation, please refer cable ladder fittings page 151 of this manual.*

## MDL - TEE HORIZONTAL

### PART REF

MDL / THLR / 150 / Finish
MDL / THLR / 225 / Finish
MDL / THLR / 300 / Finish
MDL / THLR / 450 / Finish
MDL / THLR / 600 / Finish
MDL / THLR / 750 / Finish
MDL / THLR / 900 / Finish
MDL / THLR / 1000 / Finish

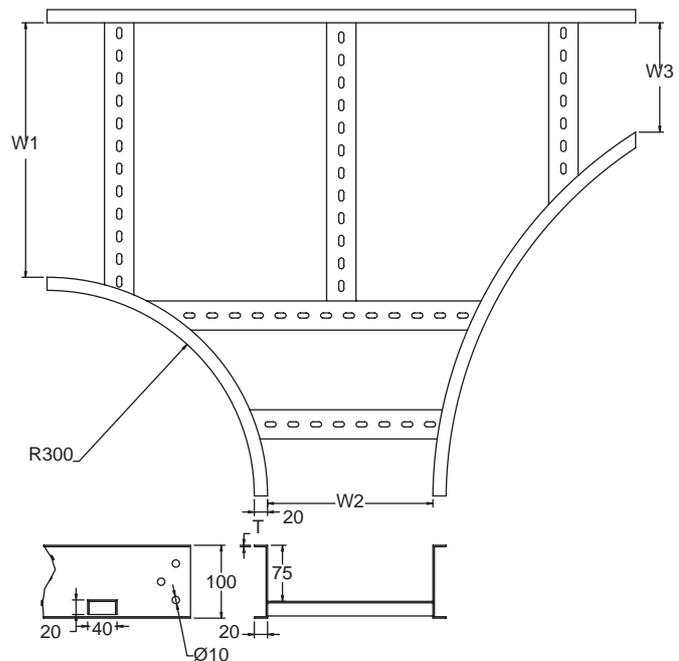
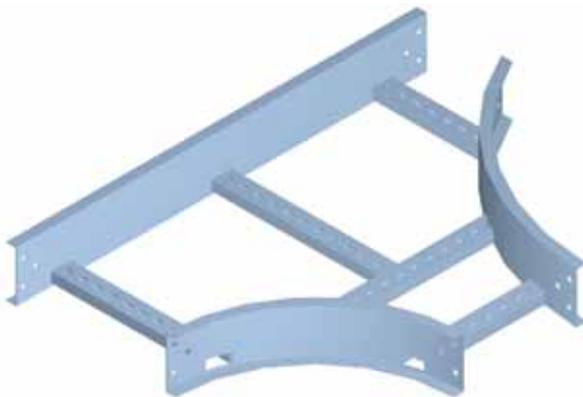


## MDL - UN EQUAL TEE

### PART REF

MDL / UTHLR / W1 / W2 / W3 / Finish
-------------------------------------

For Unequal Tee consider width W1 / W2 / W3 in anticlockwise as shown. Thickness of UTHLR to be followed of the larger size. Please refer to page 108.

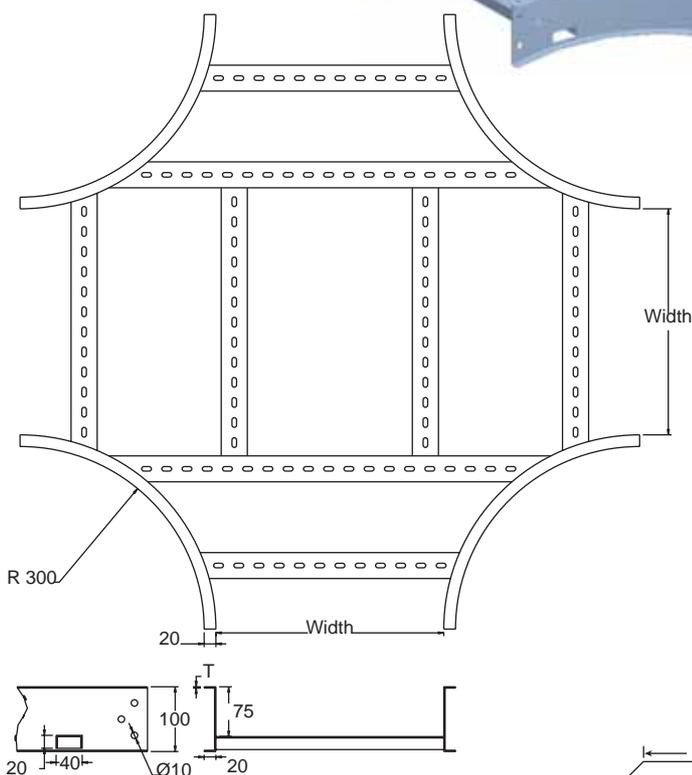
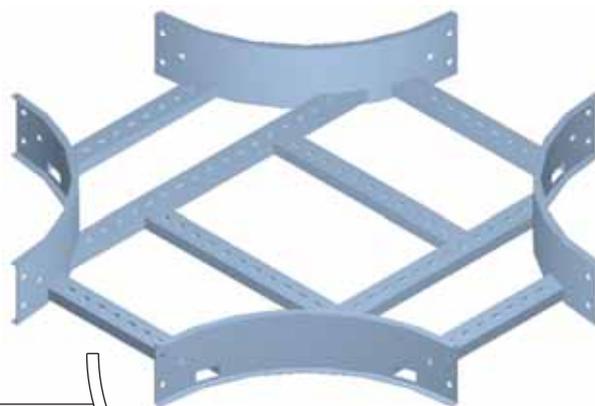


- For Thickness, Width, Rungs and Finishing details, refer page 108
- MDL Round Radial Accessories are joined by connectors. For details refer page 109
- MDL Round Radial Accessory Covers can be produced on request. For details refer page 147

# MEDIUM DUTY METAL CABLE LADDERS ROUND RADIAL ACCESSORIES

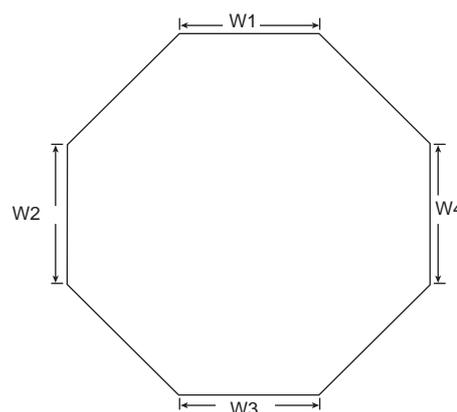
## MDL - CROSS HORIZONTAL

PART REF
MDL / CHLR / 150 / Finish
MDL / CHLR / 225 / Finish
MDL / CHLR / 300 / Finish
MDL / CHLR / 450 / Finish
MDL / CHLR / 600 / Finish
MDL / CHLR / 750 / Finish
MDL / CHLR / 900 / Finish
MDL / CHLR / 1000 / Finish



## UN-EQUAL CROSS HORIZONTAL

PART REF
MDL / UCHLR / W1 / W2 / W3 / W4 / Finish



- For Un-Equal Cross consider widths W1/W2/W3/W4 in anticlockwise direction .Thickness of the Unequal Cross to be followed of larger size.Refer page 108.
- For Thickness, Width, Rungs and Finishing details, refer page 108
- PSI Round Radial Accessories are joined by connectors. For details refer page 109
- For MDL reducer details, refer page 114.
- Thickness of reducer to be followed of larger size .For details refer to page 108.



## MEDIUM DUTY METAL CABLE LADDERS

### WEIGHT OF THE COMPONENTS

MDL - CABLE LADDER

WIDTH(mm)	WT. (Kgs.)
150	19.430
225	20.575
300	21.666
450	23.924
600	26.065
750	31.228
900	33.994
1000	35.881

COVERS FOR STRAIGHT LENGTHS

WIDTH(mm)	WT. (Kgs.)
150	5.692
225	7.664
300	9.635
450	16.282
600	21.009
750	32.160
900	38.065
1000	42.008

STRAIGHT CONNECTOR

WIDTH(mm)	WT. (Kgs.)
150 to 1000	0.187

MDL - ELBOW HORIZONTAL

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
150	2.035	3.583
225	2.512	4.325
300	2.979	5.035
450	4.282	7.197
600	5.332	8.872
750	7.272	11.734
900	9.381	15.391
1000	10.271	16.822

MDL - EXTERNAL RISER

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
150	2.767	5.056
225	3.053	5.406
300	3.328	5.735
450	3.890	6.413
600	4.431	7.070
750	5.713	8.607
900	6.402	9.445
1000	6.869	10.006

MDL - TEE HORIZONTAL

WIDTH(mm)	WT. (Kgs.)
150	6.964
225	7.653
300	8.321
450	10.356
600	12.762
750	16.494
900	20.310
1000	21.931

MDL - CROSS HORIZONTAL

WIDTH(mm)	WT. (Kgs.)
150	7.081
225	7.674
300	8.247
450	9.911
600	15.953
750	21.062
900	25.122
1000	26.988

MDL - INTERNAL RISER

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
150	2.767	5.056
225	3.053	5.406
300	3.328	5.735
450	3.890	6.413
600	4.431	7.070
750	5.713	8.607
900	6.402	9.445
1000	6.869	10.006

## HEAVY DUTY METAL CABLE LADDERS

### FOR STRAIGHT LENGTHS AND ACCESSORIES

Range / Width (W)	Thickness (T)	Side Height (H)	Usable Height
All dimensions are in mm			
150 to 1000	2.0	125	100

### STANDARD FINISHES

HDG	Hot dip Galvanized to BS EN ISO 1461:1999 (Formerly BS 729)
PG	Pre-galvanized to BS EN 10142 & 10143
PC	Powder Coating to suit clients requirements
SS	Stainless steel finish to required grades

- Heavy duty cable ladders are produced in a standard length of 3 mtrs but can be produced in different lengths on request
- Heavy duty cable ladders are produced with 125mm side height to give the user the increased usable height of the ladder. HDL are provided with outside return flanges to provide extra rigidity and strength to the ladder.
- Heavy duty cable ladder accessories are produced to standard radius of 300 mm but can be produced in 450 mm, 600mm and 900 mm as required
- Accessories cover details are provided at the end of cable ladder chapter.

### COVERS FOR STRAIGHT LENGTHS AND ACCESSORIES

Range / Width (W)	Thickness (T)	Side Height (H)
All dimensions are in mm		
150 to 300	1.0	11
450 to 600	1.2	11
750 to 1000	1.5	11

### RUNG DETAILS

Range / Width (W)	Thickness (T)
All dimensions are in mm	
150 to 600	1.5
750 to 1000	2.0

### RUNG SPACING

The standard rung spacing is 300mm. Optional Rung spacing 150mm, 250mm.

### ORDER PATTERN

To select the required component, please specify the type, component, width, finish. Angles can be mentioned wherever necessary.

### EXAMPLE:

TYPE / COMPONENT / WIDTH / FINISH (without angle) HDL / COM / WIDTH / HDG  
 TYPE / COMPONENT / WIDTH / ANGLE / FINISH (with angle) HDL / COM / WIDTH / A / HDG

Note: For special sizes, gauges, flanges, consult our sales team, factory

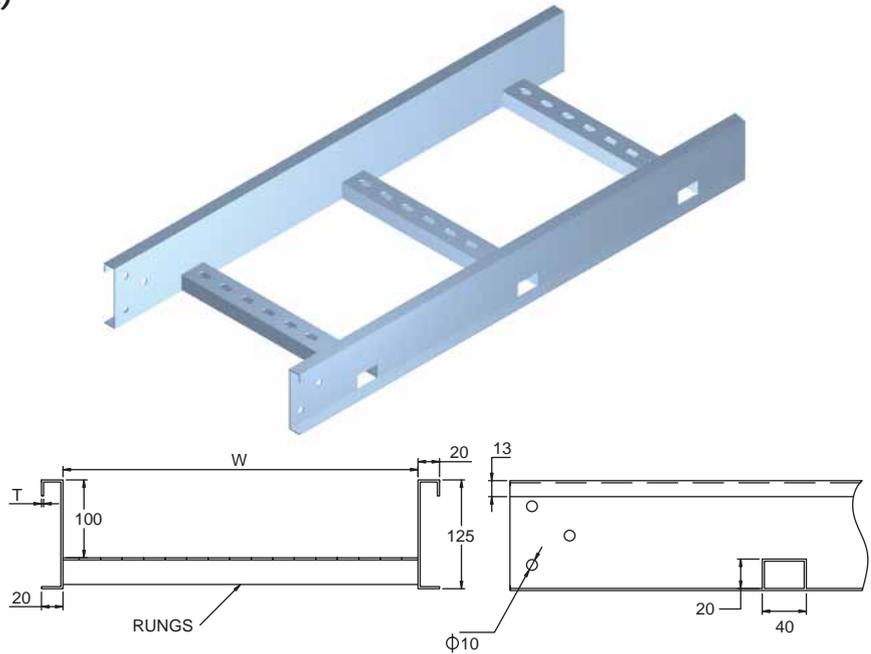


# HEAVY DUTY METAL CABLE LADDERS

## HEAVY DUTY LADDERS - (HDL)

PART REF
HDL / CL / 150 / Finish
HDL / CL / 225 / Finish
HDL / CL / 300 / Finish
HDL / CL / 450 / Finish
HDL / CL / 600 / Finish
HDL / CL / 750 / Finish
HDL / CL / 900 / Finish
HDL / CL / 1000 / Finish

Heavy Duty Ladders are produced with outside return flange for heavy duty applications.



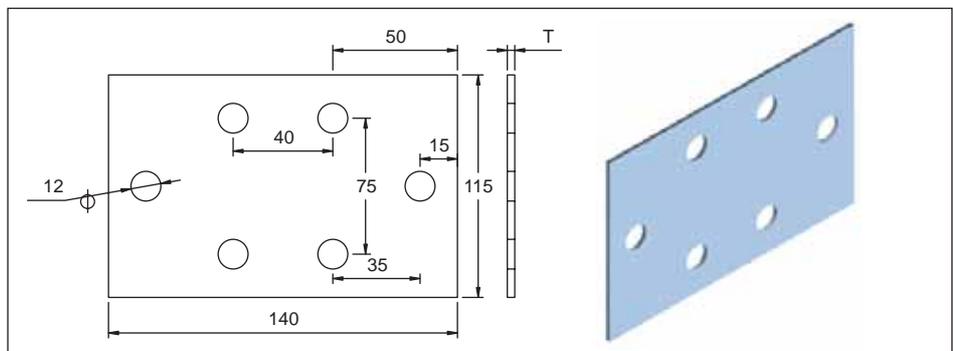
### CONNECTORS

Heavy duty cable ladders are joined together by connectors. HD Cable ladders are produced with straight connectors. Connectors are supplied in pairs with a set of M8 x 16 carriage bolts, nuts and washers. To be ordered separately

### CONNECTORS

PART REF
HDL/ SCL / Finish

Width (mm)	Thickness (mm)
150 to 1000	2.0

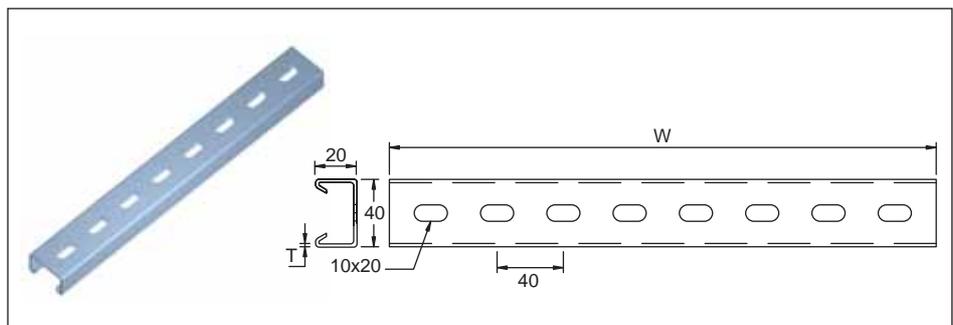


### RUNGS

Standard rungs for the Heavy duty ladder are slotted C type with return flanges.

### RUNG SPACING

The standard rung spacing is 300 mm. Optional rung spacing is 150 mm, 250 mm.



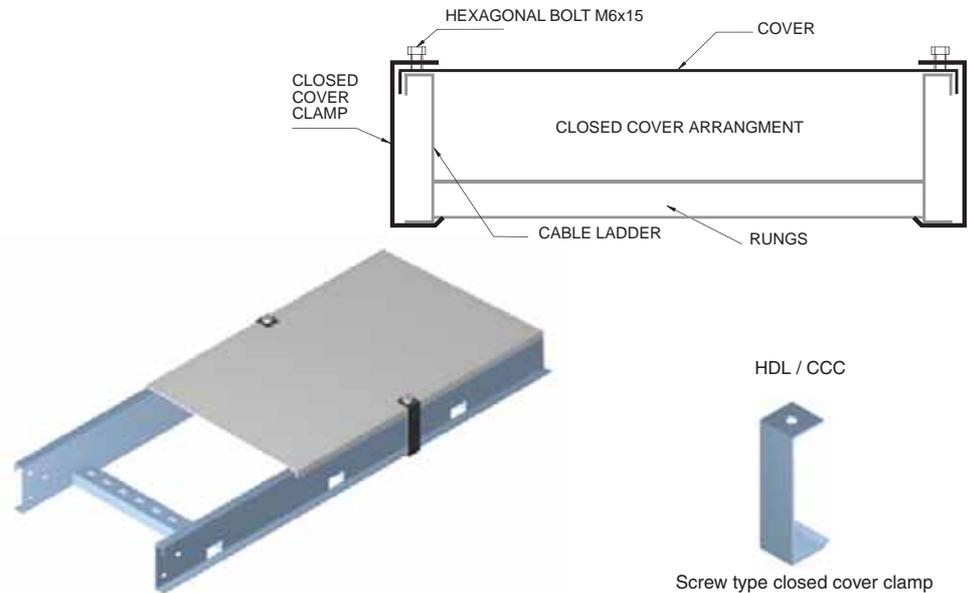
### Note:

Expansion connectors are also provided to ease the installation process at site. For details please refer to page 153.

# HEAVY DUTY METAL CABLE LADDERS

## CABLE LADDER CLOSED COVERS

PART REF
HDL / CLCC / 150 / Finish
HDL / CLCC / 225 / Finish
HDL / CLCC / 300 / Finish
HDL / CLCC / 450 / Finish
HDL / CLCC / 600 / Finish
HDL / CLCC / 750 / Finish
HDL / CLCC / 950 / Finish
HDL / CLCC / 1000 / Finish

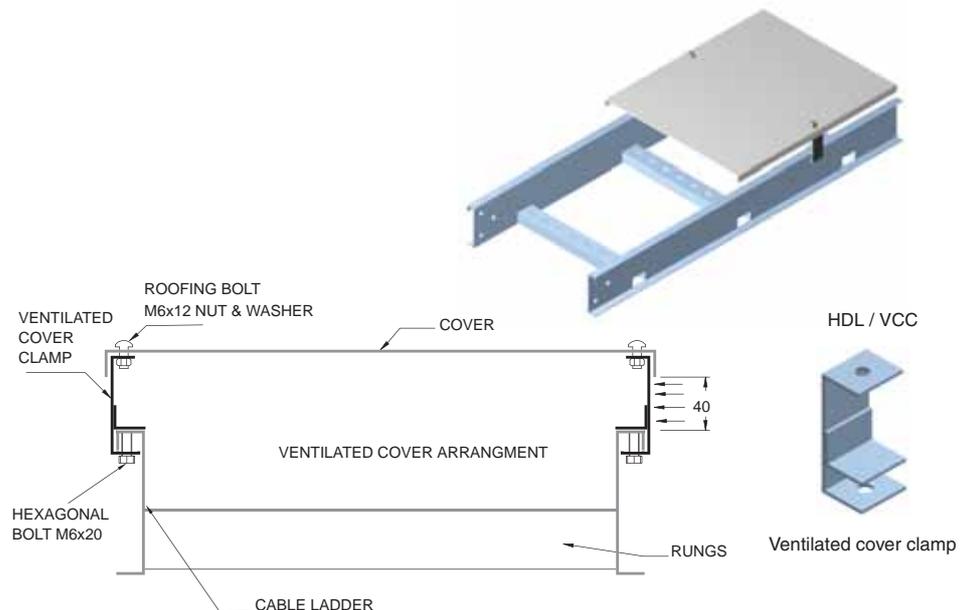


### CLOSED COVER CLAMP

Screw type closed cover clamp HDL/CCC is supplied in 3mm thickness for closed cover arrangement with the set of M6 x 15 hexagonal bolts & washers. To be ordered separately.

## CABLE LADDER VENTILATED COVERS

PART REF
HDL / CLVC / 150 / Finish
HDL / CLVC / 225 / Finish
HDL / CLVC / 300 / Finish
HDL / CLVC / 450 / Finish
HDL / CLVC / 600 / Finish
HDL / CLVC / 750 / Finish
HDL / CLVC / 900 / Finish
HDL / CLVC / 1000 / Finish



### VENTILATED COVER CLAMP

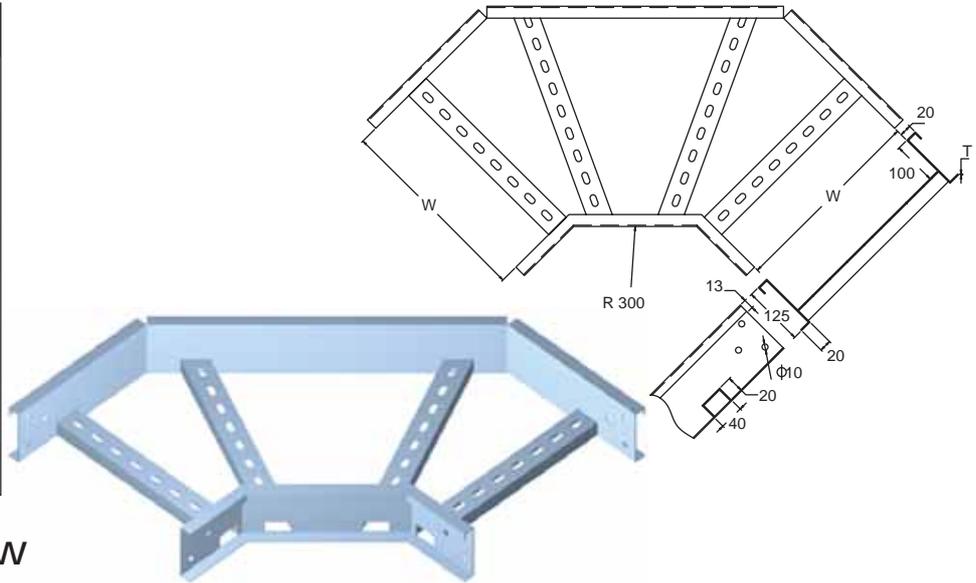
Ventilated cover clamp HDL/VCC is supplied in 3 mm thickness for Ventilated cover arrangement with the set of M6 x 12 roofing bolts, nuts, washers & hexagonal bolt M6 x 20. To be ordered separately

- Covers can be used as closed or ventilated by using an appropriate clamp. Necessary holes are provided on the covers for clamping.
- Covers can be produced with louvers also on request.
- For special sizes, gauges, flanges, consult our sales team, factory.
- For support system for the installation, please refer Metal strut framing system of this manual.

# HEAVY DUTY METAL CABLE LADDERS

## HDL - ELBOW HORIZONTAL 30° / 45° / 60° / 90°

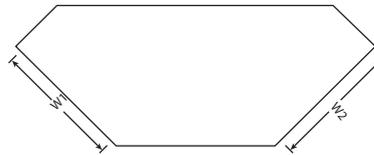
PART REF
HDL / EHL / 150 / A / Finish
HDL / EHL / 225 / A / Finish
HDL / EHL / 300 / A / Finish
HDL / EHL / 450 / A / Finish
HDL / EHL / 600 / A / Finish
HDL / EHL / 750 / A / Finish
HDL / EHL / 900 / A / Finish
HDL / EHL / 1000 / A / Finish



## HDL - UN EQUAL ELBOW

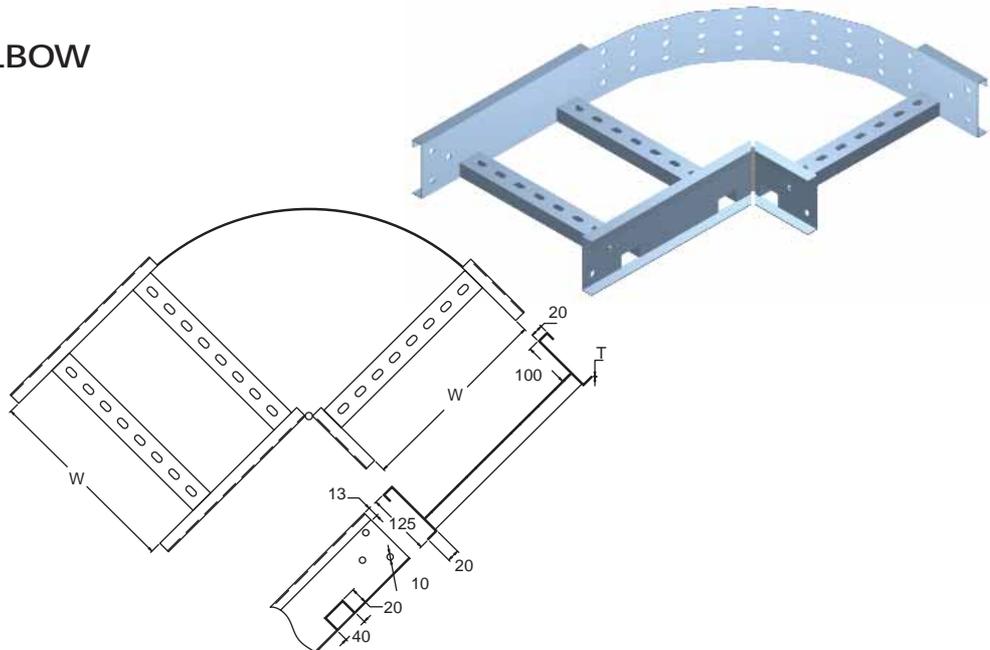
PART REF
HDL / UEHL / W1/ W2 / A / Finish

For Un-Equal elbow specify widths W1 and W2 as shown in figure. Thickness to be followed of the larger size. Refer page 120.



## HDL - ADJUSTABLE ELBOW

PART REF
HDL / AEH / 150 / Finish
HDL / AEH / 225 / Finish
HDL / AEH / 300 / Finish
HDL / AEH / 450 / Finish
HDL / AEH / 600 / Finish
HDL / AEH / 750 / Finish
HDL / AEH / 900 / Finish
HDL / AEH / 1000 / Finish

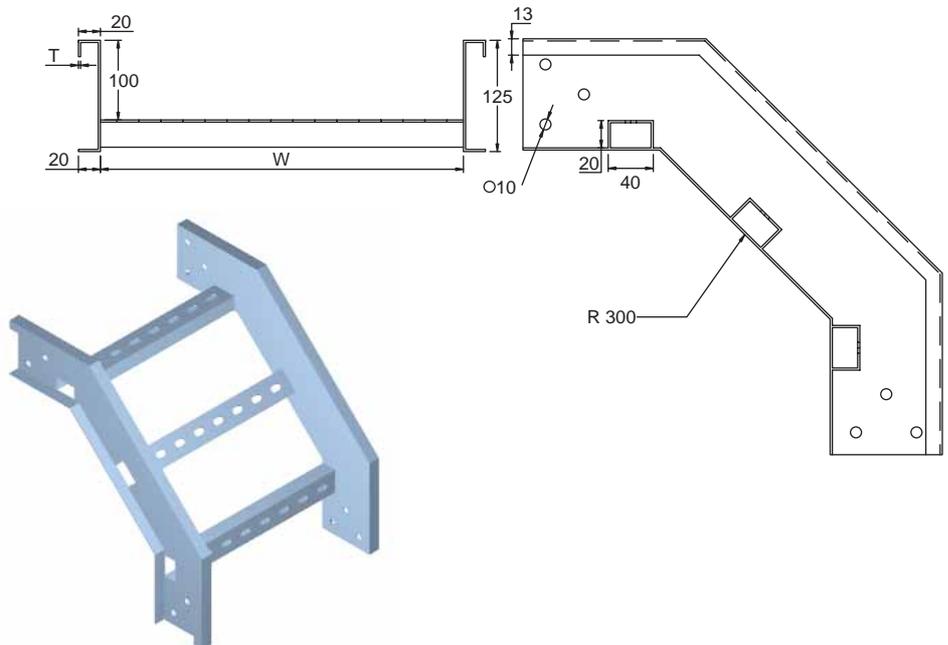


- Adjustable elbow can be used for installation at desired angles depending on site applications.
- Hinged connectors can also be used for installation at desired angles. For details refer to page 154.
- Heavy duty cable ladders and accessories are joined together by connectors. For details refer page 121.
- Bonding jumpers are used for earthing connectivity. Refer to page 154.
- For special sizes, gauges, flanges consult our sales team, factory.

## HEAVY DUTY METAL CABLE LADDERS

### HDL - EXTERNAL RISER - 30° / 45° / 60° / 90°

PART REF
HDL / ERL / 150 / A / Finish
HDL / ERL / 225 / A / Finish
HDL / ERL / 300 / A / Finish
HDL / ERL / 450 / A / Finish
HDL / ERL / 600 / A / Finish
HDL / ERL / 750 / A / Finish
HDL / ERL / 900 / A / Finish
HDL / ERL / 1000 / A / Finish

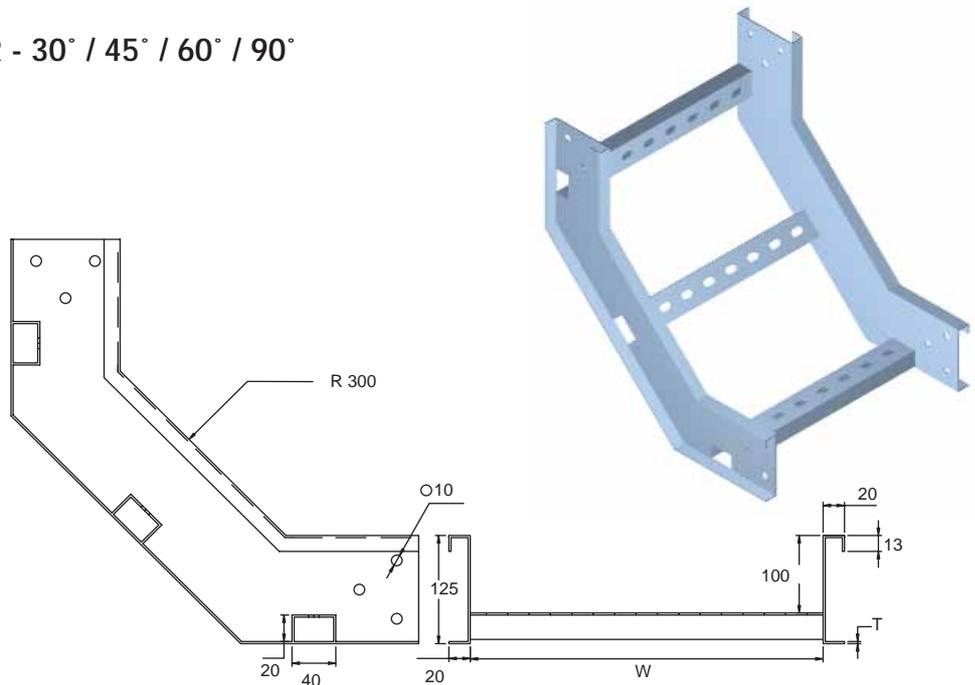


HDL ladders can also be connected by adjustable vertical connectors to function as risers. For details refer page 152.

Adjustable Riser for HD Ladders are produced on request and is specified by HDL / ARL / WIDTH / FINISH

### HDL - INTERNAL RISER - 30° / 45° / 60° / 90°

PART REF
HDL / IRL / 150 / A / Finish
HDL / IRL / 225 / A / Finish
HDL / IRL / 300 / A / Finish
HDL / IRL / 450 / A / Finish
HDL / IRL / 600 / A / Finish
HDL / IRL / 750 / A / Finish
HDL / IRL / 900 / A / Finish
HDL / IRL / 1000 / A / Finish

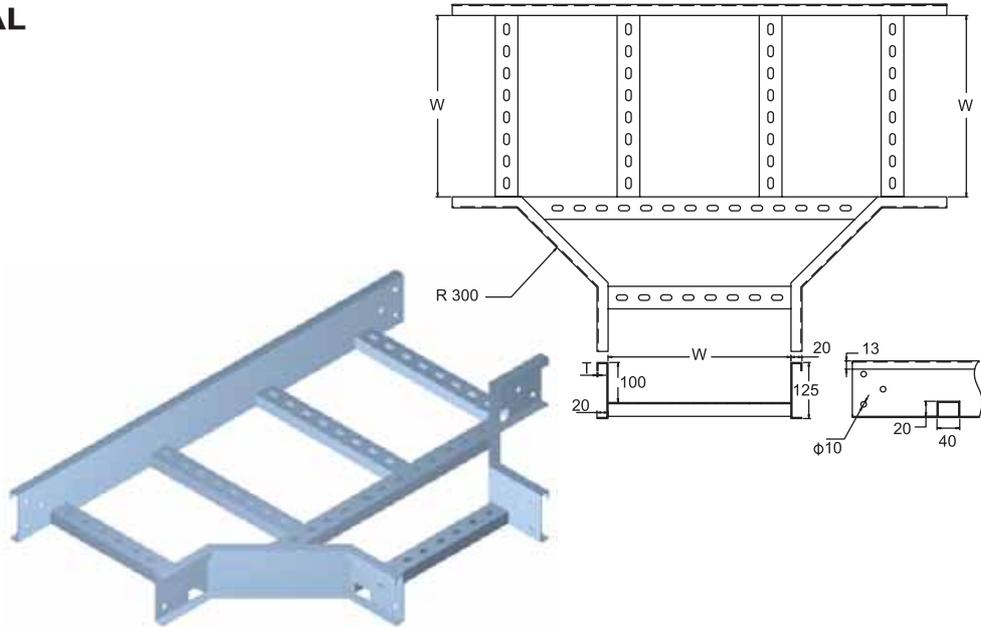


Risers are used where cables have to run upwards and downwards from their orientation

**Note:** For special sizes, gauges, flanges, consult our sales team, factory  
To order the suitable fittings for installation, please refer cable tray fittings page 151 of this manual

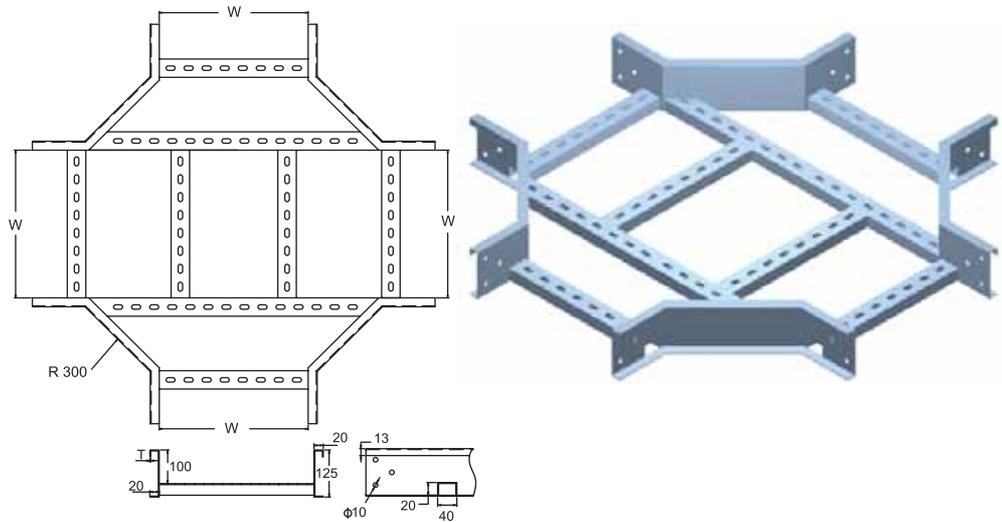
## HDL - TEE HORIZONTAL

PART REF
HDL / THL / 150 / Finish
HDL / THL / 225 / Finish
HDL / THL / 300 / Finish
HDL / THL / 450 / Finish
HDL / THL / 600 / Finish
HDL / THL / 750 / Finish
HDL / THL / 900 / Finish
HDL / THL / 1000 / Finish



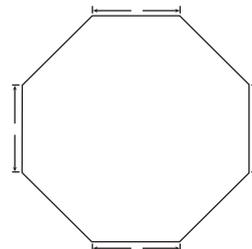
## HDL - CROSS HORIZONTAL

PART REF
HDL / CHL / 150 / Finish
HDL / CHL / 225 / Finish
HDL / CHL / 300 / Finish
HDL / CHL / 450 / Finish
HDL / CHL / 600 / Finish
HDL / CHL / 750 / Finish
HDL / CHL / 900 / Finish
HDL / CHL / 1000 / Finish



## HDL - UN EQUAL CROSS

PART REF
HDL / UCHL / W1 / W2 / W3 / W4 / Finish



For UnEqual cross consider widths in anti-clockwise as shown in figure. Thickness to be followed of the larger size. Refer page 120 .

**Note:**

Un-Equal Tee/Cross can be used in places to accommodate ladders of different widths at one location.

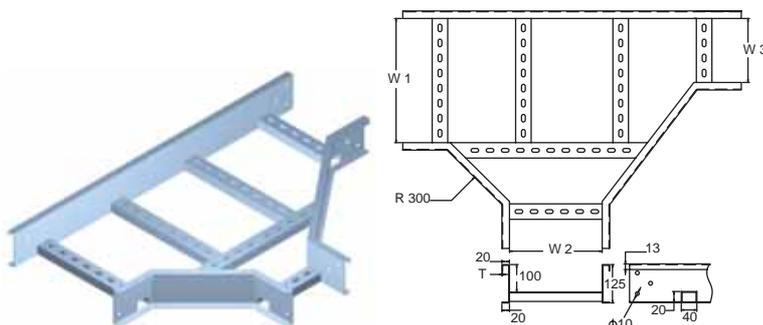
# HEAVY DUTY METAL CABLE LADDERS

## HDL - UN-EQUAL TEE

### PART REF

HDL / UTHL / W1 / W2 / W3 / Finish

For Unequal Tee consider width W1 / W2 / W3 in anticlockwise as shown. Thickness of UTHL to be followed of the larger size. Please refer to page 120.

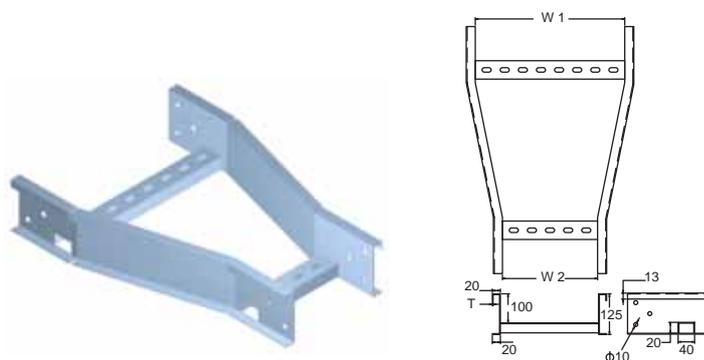


## HDL - REDUCER STRAIGHT

### PART REF

HDL / RSL / W1 / W2 / Finish

Reducing connectors can also be used as reducers depending on site requirements. For details refer to page 152.

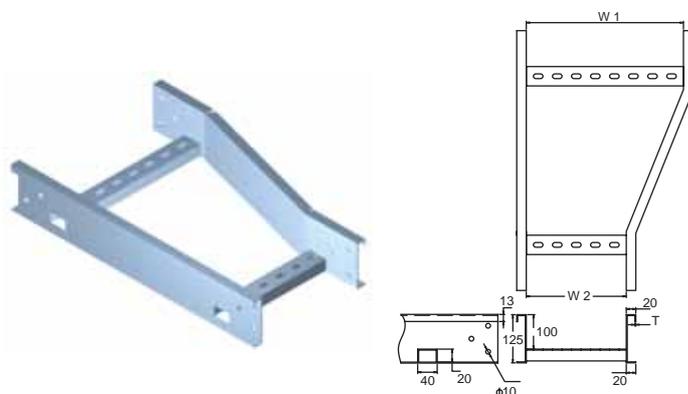


## HDL - REDUCER RIGHT

### PART REF

HDL / RRL / W1 / W2 / Finish

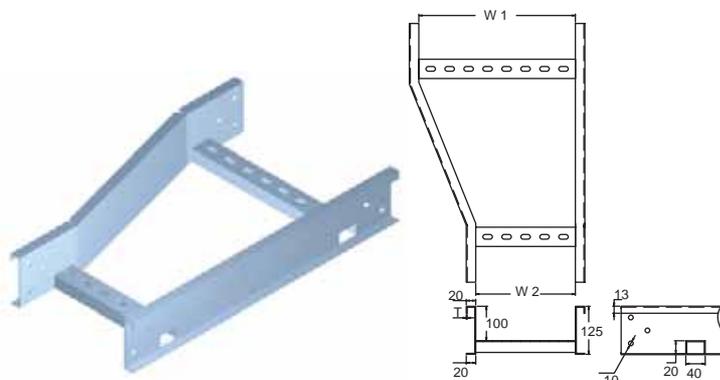
Reducer left/right are used where ladders have a limitation on run either on left or right side.



## HDL - REDUCER LEFT

### PART REF

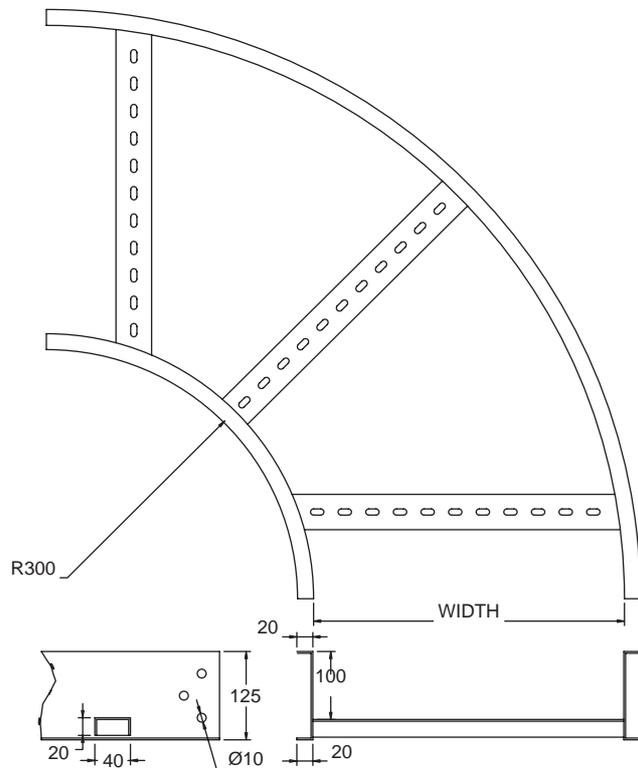
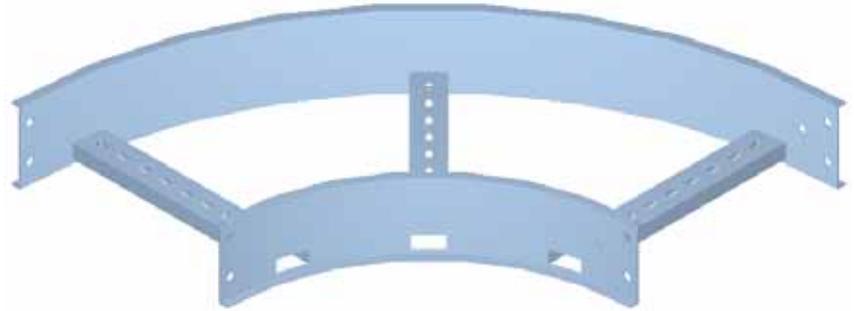
HDL / RLL / W1 / W2 / Finish



**Note:** Thickness of reducer to be followed of larger size .For details refer to page 120.  
For Accessories Cover details refer to page 144.

## HDL - ELBOW HORIZONTAL 30° / 45° / 60° / 90°

PART REF
HDL / EHLR / 150 / A / Finish
HDL / EHLR / 225 / A / Finish
HDL / EHLR / 300 / A / Finish
HDL / EHLR / 450 / A / Finish
HDL / EHLR / 600 / A / Finish
HDL / EHLR / 750 / A / Finish
HDL / EHLR / 900 / A / Finish
HDL / EHLR / 1000 / A / Finish

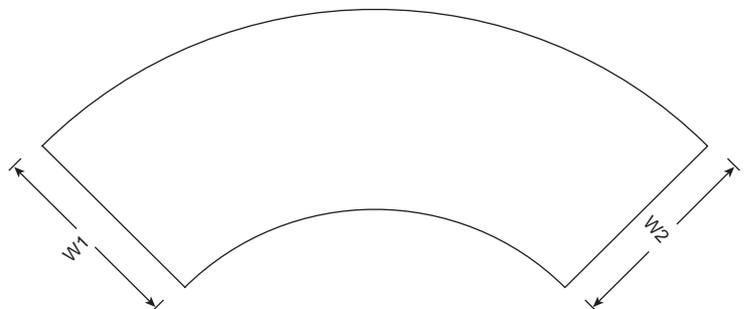


- For Thickness, Width, Rungs & Finishing details refer page 120

## HDL - UN EQUAL ELBOW

PART REF
HDL / UEHLR / W1 / W2 / A / Finish

For Un-Equal elbow specify widths W1 and W2 as shown in figure. Thickness to be followed of the larger size. Refer page 120.

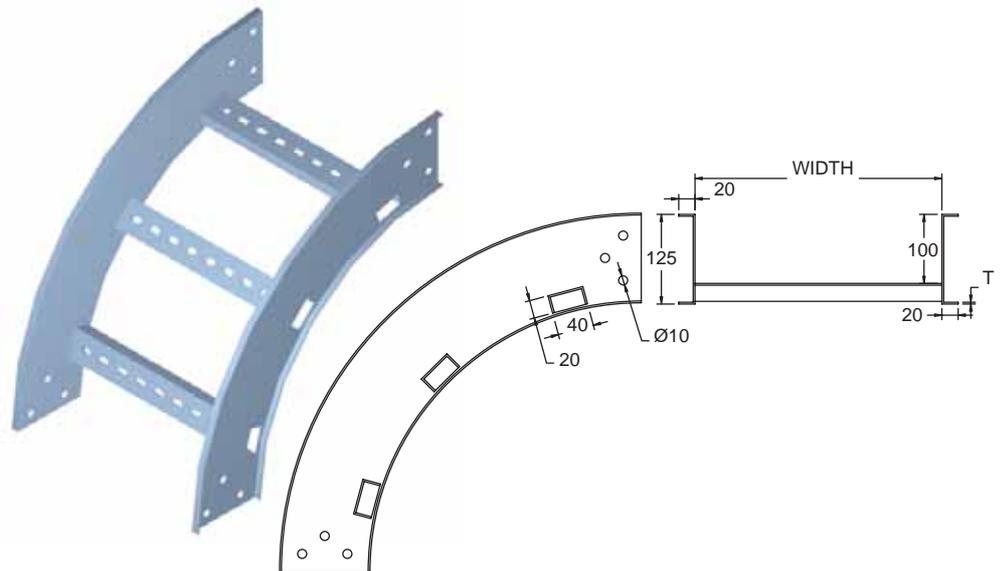


- Heavy duty cable ladders and accessories are joined together by connectors. For details refer page 121.
- Bonding jumpers are used for earthing connectivity. Refer to page 154.
- For special sizes, gauges, flanges consult our sales team, factory.
- HDL Round Radial Accessory covers are produced on request. For details refer page 147.

# HEAVY DUTY METAL CABLE LADDERS ROUND RADIAL ACCESSORIES

## HDL - EXTERNAL RISER - 30° / 45° / 60° / 90°

PART REF
HDL / ERLR / 150 / A / Finish
HDL / ERLR / 225 / A / Finish
HDL / ERLR / 300 / A / Finish
HDL / ERLR / 450 / A / Finish
HDL / ERLR / 600 / A / Finish
HDL / ERLR / 750 / A / Finish
HDL / ERLR / 900 / A / Finish
HDL / ERLR / 1000 / A / Finish

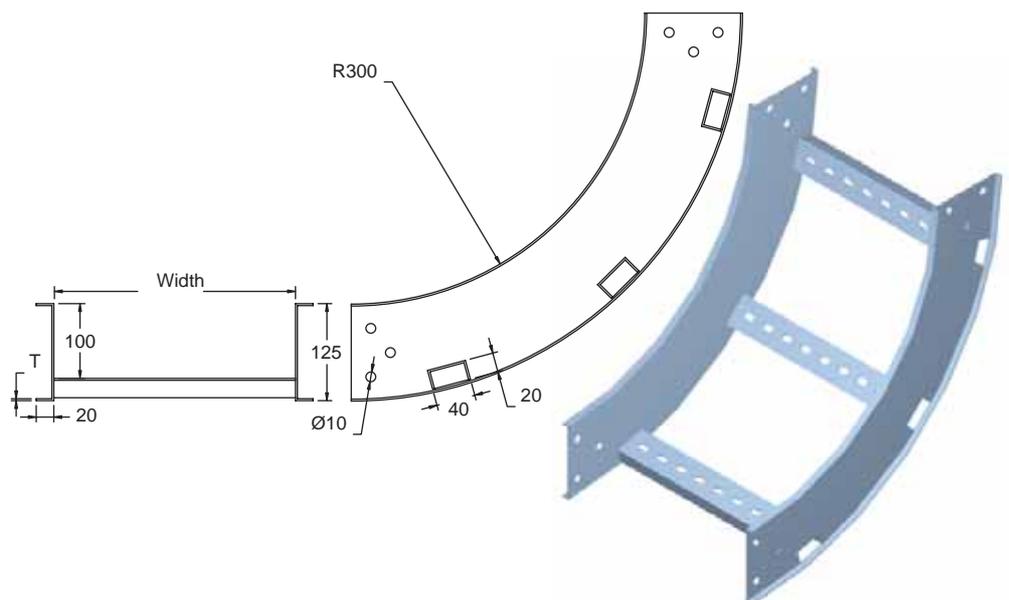


HDL ladders can also be connected by adjustable vertical connectors to function as risers. For details refer page 152.

Adjustable Riser for HD Ladders are produced on request and is specified by HDL / ARL / WIDTH / FINISH

## HDL - INTERNAL RISER - 30° / 45° / 60° / 90°

PART REF
HDL / IRLR / 150 / A / Finish
HDL / IRLR / 225 / A / Finish
HDL / IRLR / 300 / A / Finish
HDL / IRLR / 450 / A / Finish
HDL / IRLR / 600 / A / Finish
HDL / IRLR / 750 / A / Finish
HDL / IRLR / 900 / A / Finish
HDL / IRLR / 1000 / A / Finish

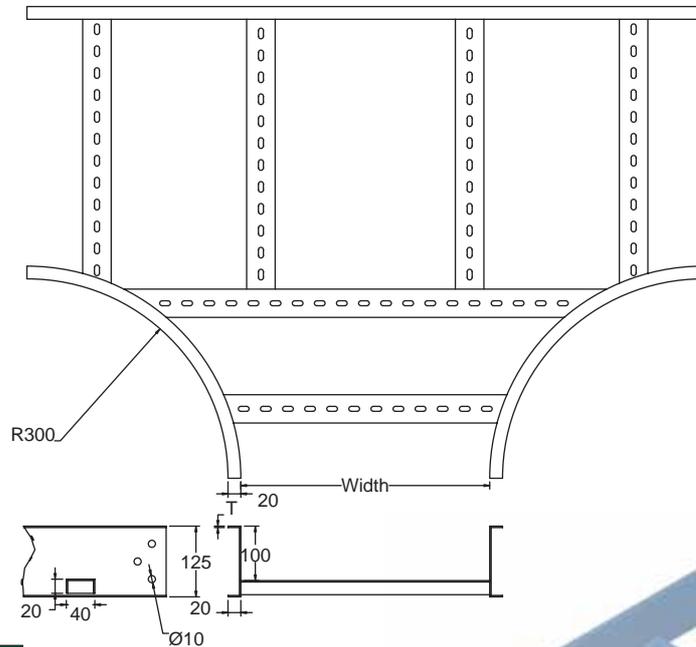


Risers are used where cables have to run upwards and downwards from their orientation. HDL Round Radial Accessories are joined by connectors. For details refer page 121

**Note:** For special sizes, gauges, flanges, consult our sales team, factory  
To order the suitable fittings for installation, please refer cable tray fittings page 151 of this manual

## HDL - TEE HORIZONTAL

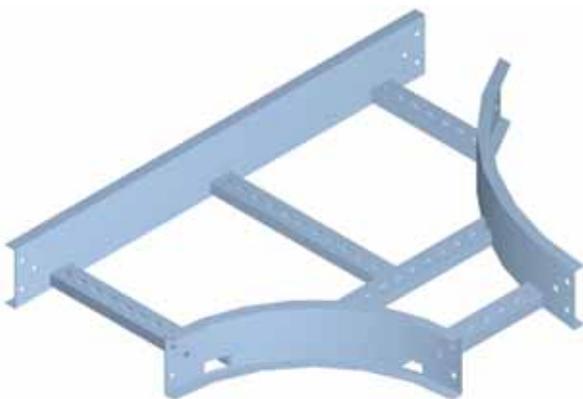
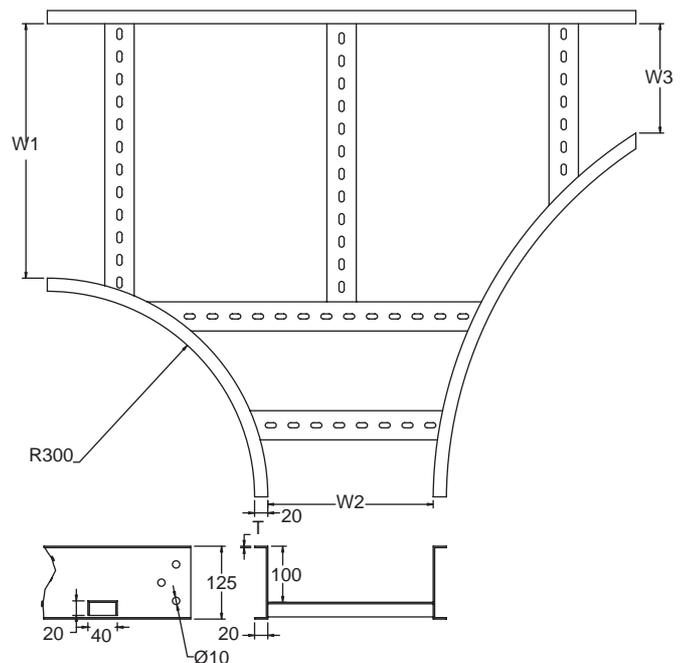
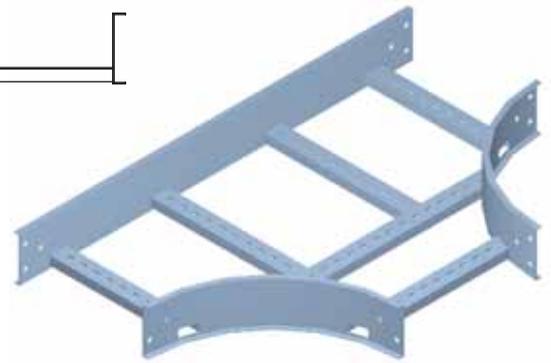
PART REF
HDL / THLR / 150 / Finish
HDL / THLR / 225 / Finish
HDL / THLR / 300 / Finish
HDL / THLR / 450 / Finish
HDL / THLR / 600 / Finish
HDL / THLR / 750 / Finish
HDL / THLR / 900 / Finish
HDL / THLR / 1000 / Finish



## HDL - UN-EQUAL TEE

PART REF
HDL / UTHLR / W1 / W2 / W3 / Finish

For Unequal Tee consider width W1 / W2 / W3 in anticlockwise as shown. Thickness of UTHLR to be followed of the larger size. Please refer to page 120.

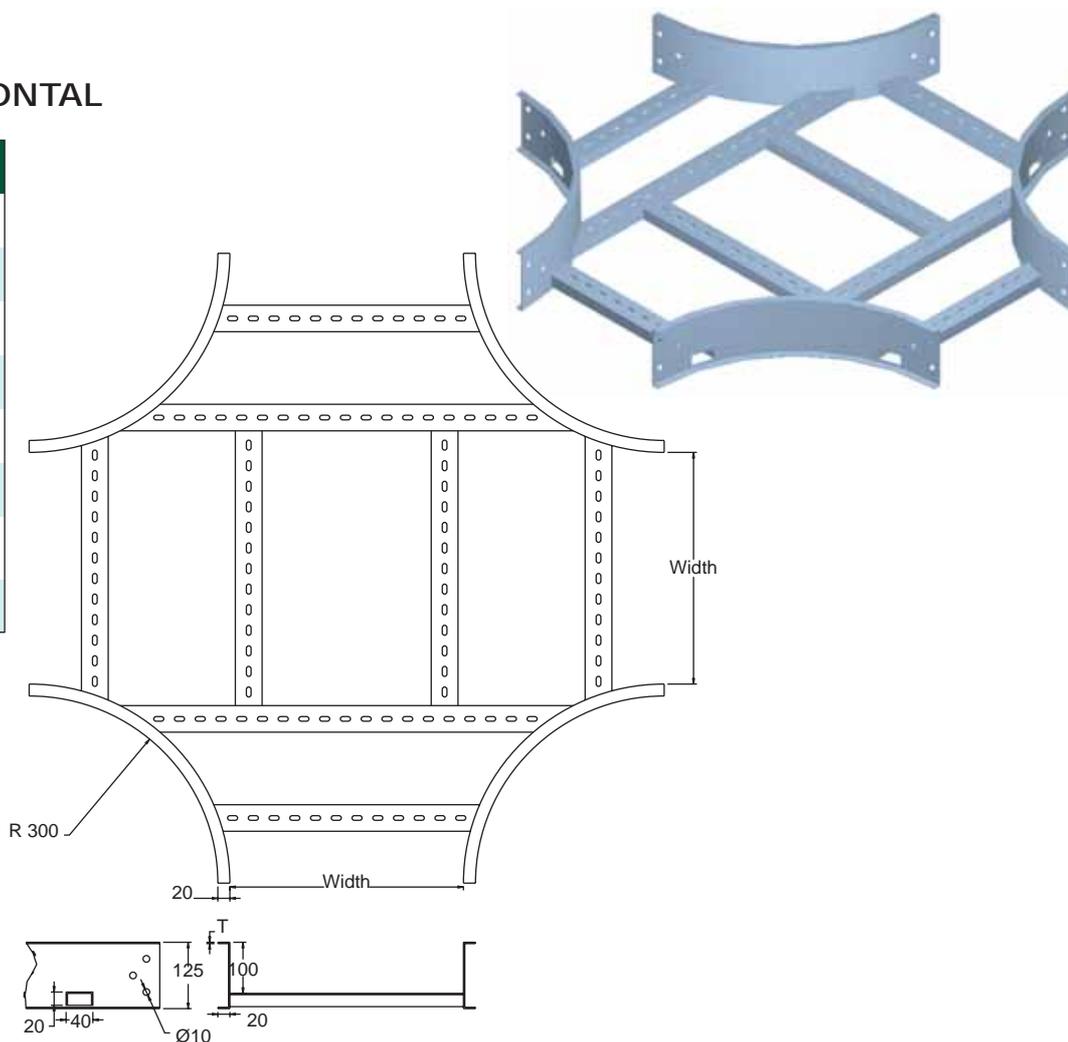


- For Thickness, Width, Rungs and Finishing details, refer page 120
- HDL Round Radial Accessories are joined by connectors. For details refer page 121
- HDL Round Radial Accessory Covers can be produced on request. For details refer page 147

# HEAVY DUTY METAL CABLE LADDERS ROUND RADIAL ACCESSORIES

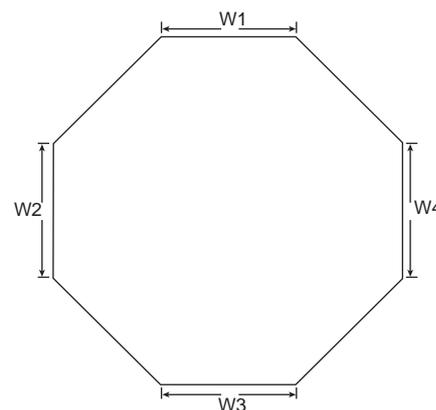
## HDL - CROSS HORIZONTAL

PART REF
HDL / CHLR / 150 / Finish
HDL / CHLR / 225 / Finish
HDL / CHLR / 300 / Finish
HDL / CHLR / 450 / Finish
HDL / CHLR / 600 / Finish
HDL / CHLR / 750 / Finish
HDL / CHLR / 900 / Finish
HDL / CHLR / 1000 / Finish



## HDL - UN EQUAL CROSS

PART REF
HDL / UCHLR / W1 / W2 / W3 / W4 / Finish



- For UnEqual cross consider widths in anti-clockwise as shown in figure. Thickness to be followed of the larger size. Refer page 120.
- For Thickness, Width, Rungs and Finishing details, refer page 120
- HDL Round Radial Accessories are joined by connectors. For details refer page 121
- For HDL reducer details, refer page 126.
- Thickness of the reducer to be followed of the larger size. For details refer page 120.

**Note:**

*Un-Equal Tee / Cross can be used in places to accommodate ladders of different widths at one location.*



# HEAVY DUTY METAL CABLE LADDERS

## WEIGHT OF THE COMPONENTS

HDL - CABLE LADDER

WIDTH(mm)	WT. (Kgs.)
150	12.603
225	13.462
300	14.289
450	15.974
600	23.521
750	25.758
900	27.973
1000	29.479

COVERS FOR STRAIGHT LENGTHS

WIDTH(mm)	WT. (Kgs.)
150	5.692
225	7.664
300	9.635
450	16.282
600	21.009
750	32.160
900	38.065
1000	42.008

STRAIGHT CONNECTOR

WIDTH(mm)	WT. (Kgs.)
150 to 1000	0.242

HDL - ELBOW  
HORIZONTAL

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
150	1.548	2.735
225	1.887	3.244
300	2.247	3.805
450	3.328	5.660
600	4.834	7.876
750	5.819	9.392
900	7.505	12.296
1000	8.109	13.239

HDL - EXTERNAL RISER

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
150	0.625	1.261
225	0.848	1.696
300	1.060	2.131
450	1.802	3.604
600	2.321	4.653
750	3.551	7.102
900	4.208	8.427
1000	4.643	9.296

HDL - TEE HORIZONTAL

WIDTH(mm)	WT. (Kgs.)
150	4.357
225	4.834
300	5.300
450	6.879
600	11.374
750	13.091
900	16.218
1000	17.373

HDL - CROSS HORIZONTAL

WIDTH(mm)	WT. (Kgs.)
150	5.809
225	6.402
300	6.975
450	8.650
600	14.172
750	16.176
900	19.493
1000	22.461

HDL - INTERNAL RISER

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
150	1.654	2.947
225	1.866	3.201
300	2.067	3.445
450	2.480	3.954
600	3.858	5.925
750	4.420	6.593
900	4.982	7.272
1000	5.724	7.717

## EXTRA HEAVY DUTY METAL CABLE LADDERS

### FOR STRAIGHT LENGTHS AND ACCESSORIES

Range / Width (W)	Thickness (T)	Side Height (H)	Usable Height
All dimensions are in mm			
150 to 1000	2.0	150	121

### STANDARD FINISHES

HDG	Hot dip Galvanized to BS EN ISO 1461:1999 (Formerly BS 729)
PG	Pre-galvanized to BS EN 10142 & 10143
PC	Powder Coating to suit clients requirements
SS	Stainless steel finish to required grades

- Extra Heavy duty cable ladders are produced in a standard length of 3 mtrs but can be produced in different lengths on request
- Extra Heavy duty cable ladders are produced with 150 mm side height to give the user the increased usable height of the ladder. XDL are provided with outside return flanges to provide extra rigidity and strength to the ladder.
- Extra Heavy duty cable ladder accessories are produced to standard radius of 300 mm but can be produced in 450 mm, 600mm and 900 mm as required
- Accessories cover details are provided at the end of cable ladder chapter.

### COVERS FOR STRAIGHT LENGTHS AND ACCESSORIES

Range / Width (W)	Thickness (T)	Side Height (H)
All dimensions are in mm		
150 to 300	1.0	11
450 to 600	1.2	11
750 to 1000	1.5	11

### RUNG DETAILS

Range / Width (W)	Thickness (T)
All dimensions are in mm	
150 to 1000	2.0

#### RUNG SPACING

The standard rung spacing is 300mm. Optional Rung spacing 150mm, 250mm.

### ORDER PATTERN

To select the required component, please specify the type, component, width, finish. Angles can be mentioned wherever necessary.

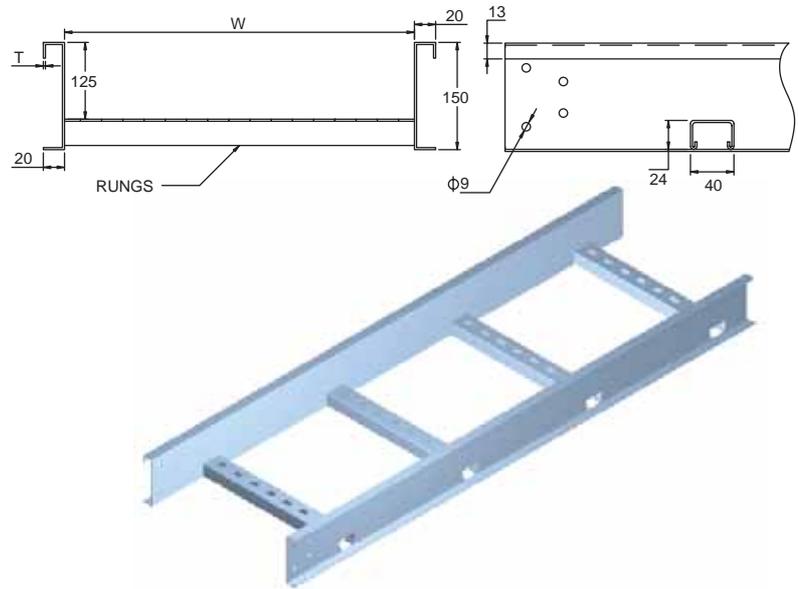
#### EXAMPLE:

TYPE / COMPONENT / WIDTH / FINISH (without angle) XDL / COM / WIDTH / HDG  
 TYPE / COMPONENT / WIDTH / ANGLE / FINISH (with angle) XDL / COM / WIDTH / A / HDG

Note: For special sizes, gauges, flanges, consult our sales team, factory

## EXTRA HEAVY DUTY LADDERS

PART REF
XDL / CL / 150 / Finish
XDL / CL / 225 / Finish
XDL / CL / 300 / Finish
XDL / CL / 450 / Finish
XDL / CL / 600 / Finish
XDL / CL / 750 / Finish
XDL / CL / 900 / Finish
XDL / CL / 1000 / Finish



Extra Heavy duty ladders are produced with outside return flange for extra heavy duty applications.

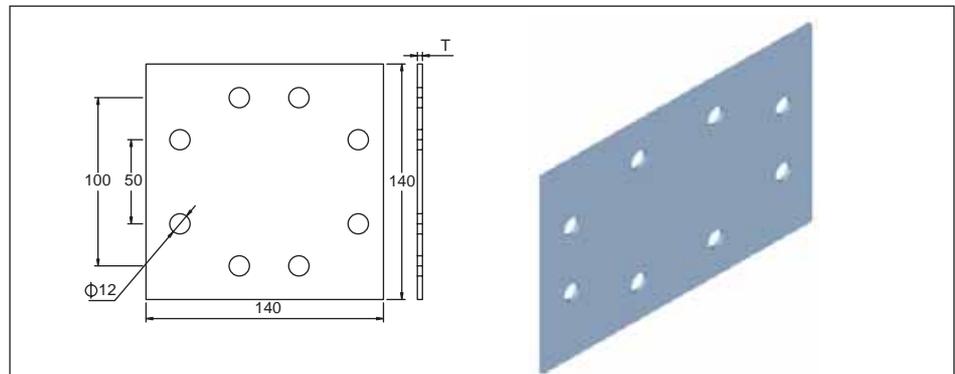
### CONNECTORS

Extra Heavy duty cable ladders are joined together by connectors. XDL Cable ladders are produced with straight connectors. Connectors are supplied in pairs with a set of M8 x 16 carriage bolt, nut and washer. To be ordered separately.

### CONNECTORS

PART REF
XDL / SCL / Finish

Width (mm)	Thickness (mm)
150 to 1000	2.0



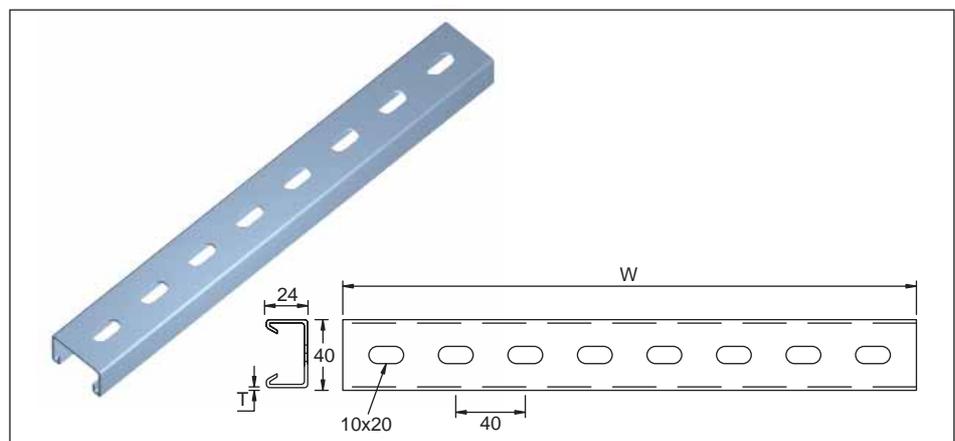
### RUNGS

Standard rungs for the Extra Heavy duty ladder are slotted C - type with return flanges

- Optional rungs are 41 x 21 strut channel in 2.5 mm thickness. Usable height with option increases to 124 mm.

### RUNG SPACING

The standard rung spacing is 300mm. Optional Rung spacing 150mm, 250mm.

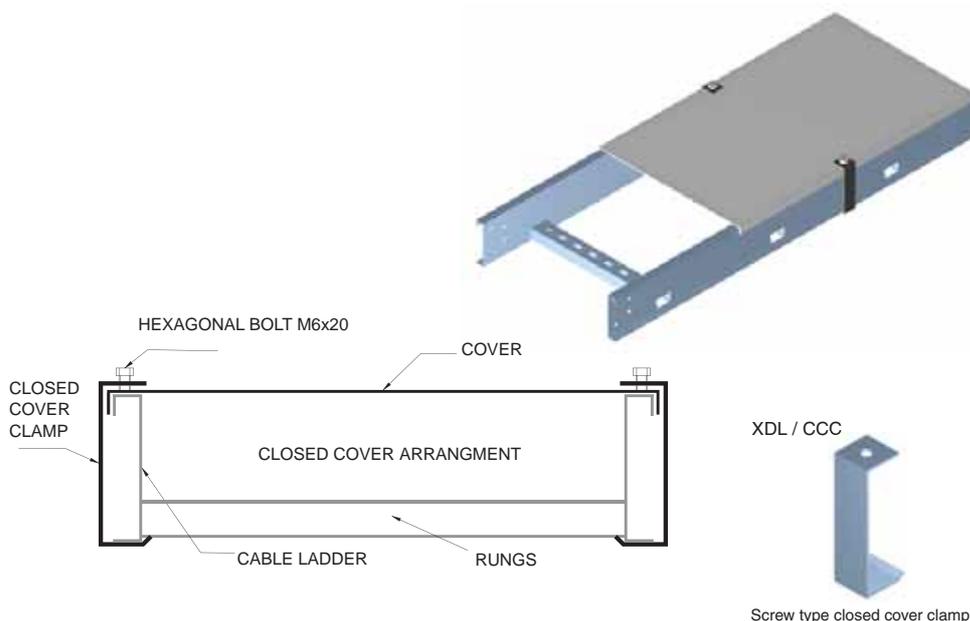


**Note:** Expansion connectors are also provided to ease the installation process on site. For details refer page 153.

# EXTRA HEAVY DUTY METAL CABLE LADDERS

## CABLE LADDER CLOSED COVERS

PART REF
XDL / CLCC / 150 / Finish
XDL / CLCC / 225 / Finish
XDL / CLCC / 300 / Finish
XDL / CLCC / 450 / Finish
XDL / CLCC / 600 / Finish
XDL / CLCC / 750 / Finish
XDL / CLCC / 950 / Finish
XDL / CLCC / 1000 / Finish

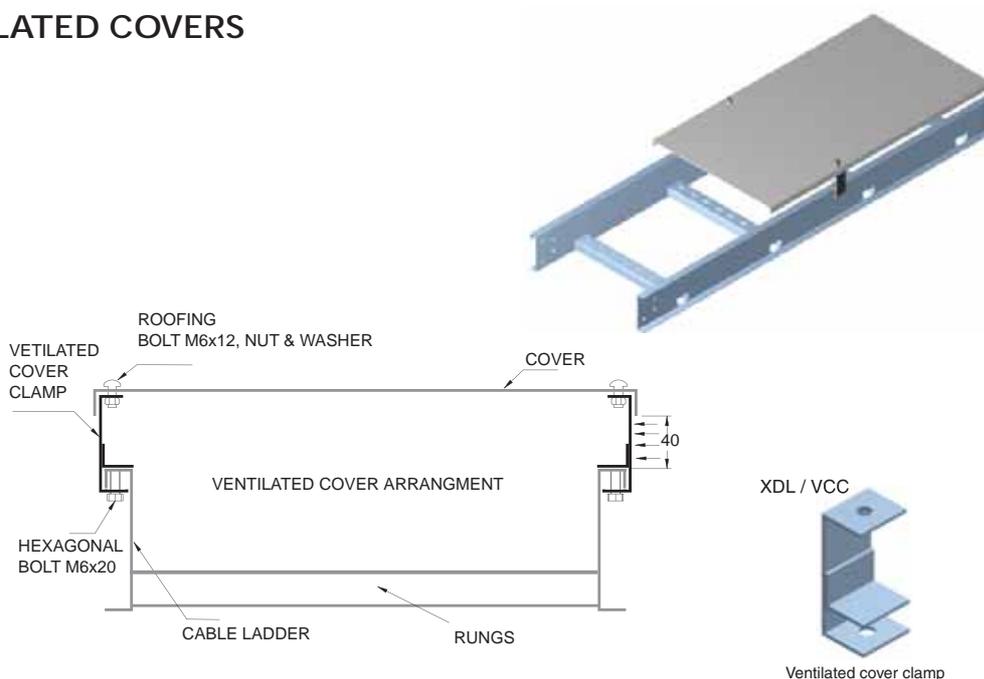


### CLOSED COVER CLAMP

Screw type closed cover clamp XDL/CCC is supplied in 3 mm thickness for closed cover arrangement with M6 x 20 hexagonal bolt. To be ordered separately

## CABLE LADDER VENTILATED COVERS

PART REF
XDL / CLVC / 150 / Finish
XDL / CLVC / 225 / Finish
XDL / CLVC / 300 / Finish
XDL / CLVC / 450 / Finish
XDL / CLVC / 600 / Finish
XDL / CLVC / 750 / Finish
XDL / CLVC / 900 / Finish
XDL / CLVC / 1000 / Finish



### VENTILATED COVER CLAMP

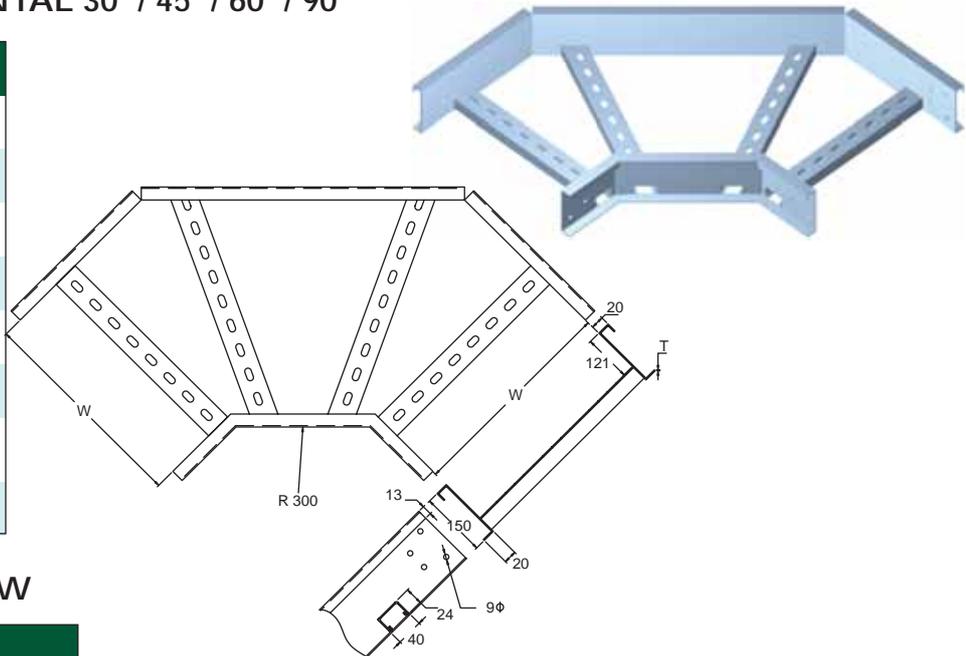
Ventilated cover clamp XDL/VCC is supplied in 3 mm thickness for Ventilated cover arrangement with the set of M6 x 12 roofing bolt, nut & washer and hexagonal bolt M6 x 20. To be ordered separately

- Covers can be used as closed or ventilated by using an appropriate clamp - Necessary holes are provided on the covers for clamping.
- Covers can be produced with louvers also on request.
- For special sizes, gauges, flanges, consult our sales team, factory.
- For support system for the installation, please refer Metal strut framing system of this manual.

## XDL - ELBOW HORIZONTAL 30° / 45° / 60° / 90°

### PART REF

XDL / EHL / 150 / A / Finish
XDL / EHL / 225 / A / Finish
XDL / EHL / 300 / A / Finish
XDL / EHL / 450 / A / Finish
XDL / EHL / 600 / A / Finish
XDL / EHL / 750 / A / Finish
XDL / EHL / 900 / A / Finish
XDL / EHL / 1000 / A / Finish

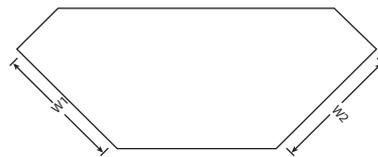


## XDL - UN-EQUAL ELBOW

### PART REF

XDL / UEHL / W1/ W2 / A / Finish
----------------------------------

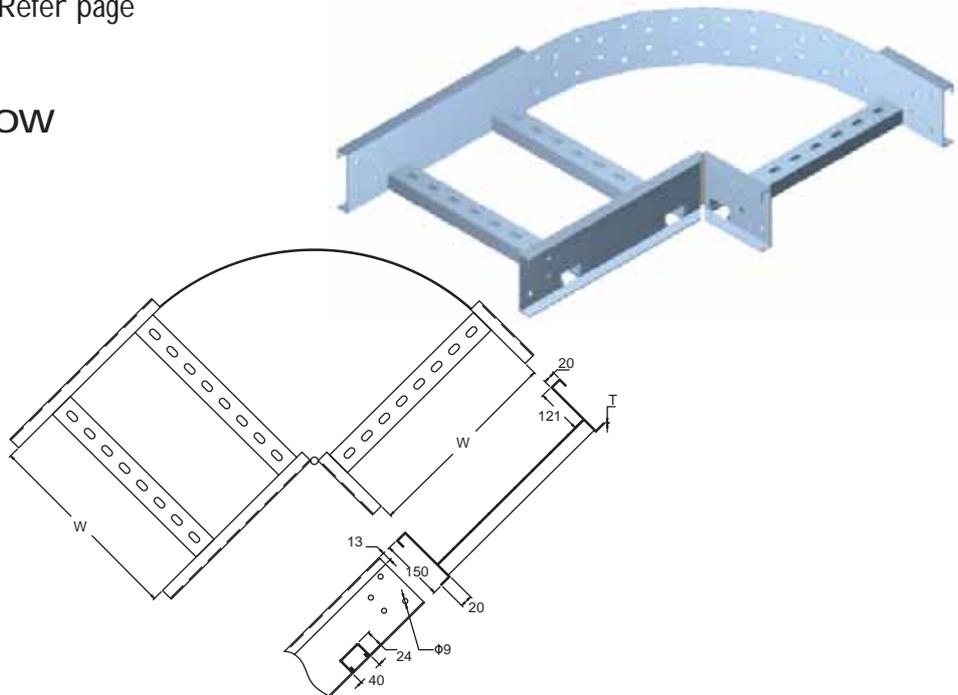
For Un-Equal elbow specific widths W1 and W2 as shown in figure. Thickness to be followed of the larger size. Refer page 132.



## XDL - ADJUSTABLE ELBOW

### PART REF

XDL / AEH / 150 / Finish
XDL / AEH / 225 / Finish
XDL / AEH / 300 / Finish
XDL / AEH / 450 / Finish
XDL / AEH / 600 / Finish
XDL / AEH / 750 / Finish
XDL / AEH / 900 / Finish
XDL / AEH / 1000 / Finish

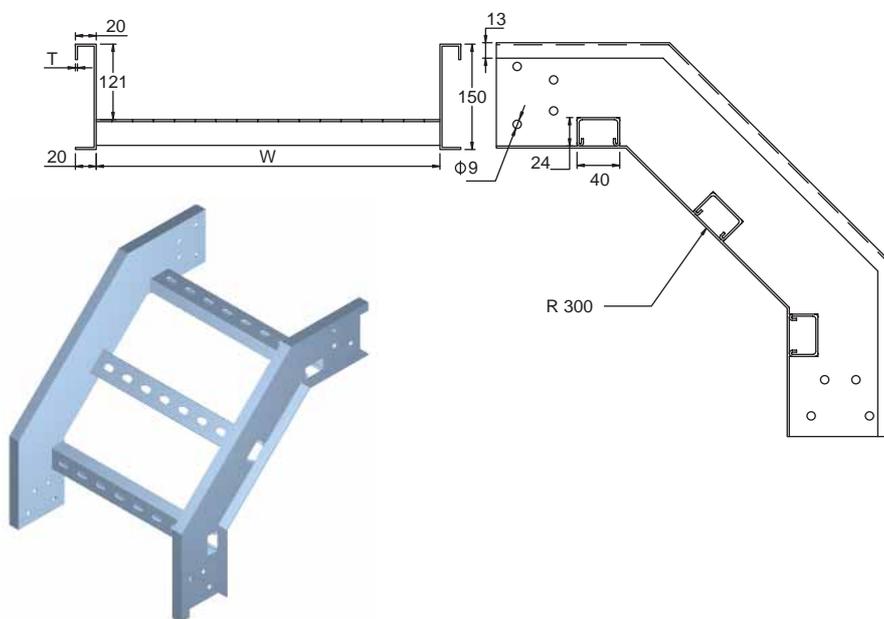


- Adjustable elbow can be used for installation at desired angles depending on site applications.
- Hinged connectors can also be used for installation at desired angles. For details refer to page 154.
- Extra Heavy duty cable ladders and accessories are joined together by connectors. For details refer page 133.
- Bonding jumpers are used for earthing connectivity. Refer to page 154.
- For special sizes, gauges, flanges consult our sales team, factory.

## EXTRA HEAVY DUTY METAL CABLE LADDERS

### XDL - EXTERNAL RISER - 30° / 45° / 60° / 90°

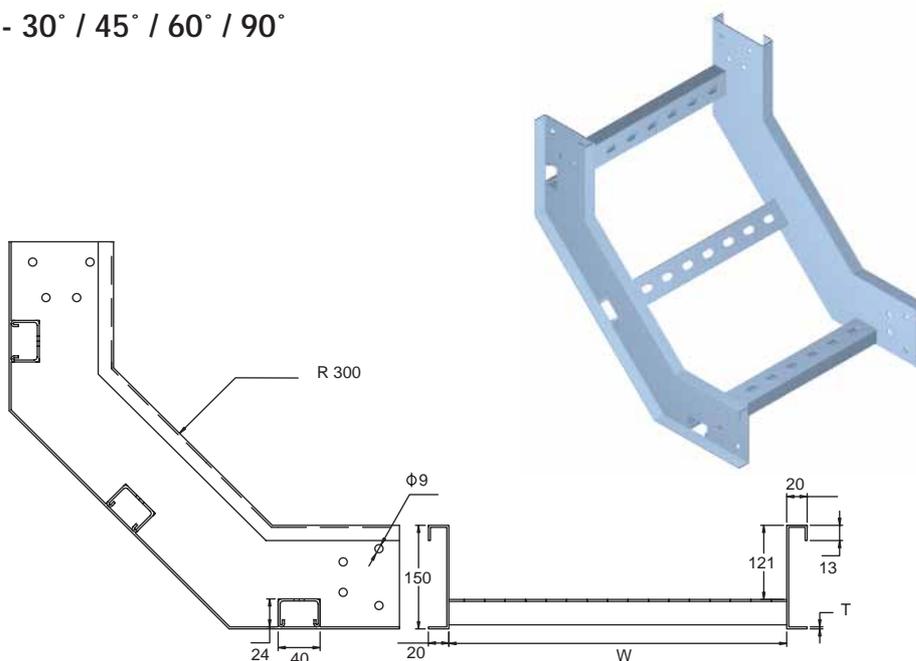
PART REF
XDL / ERL / 150 / A / Finish
XDL / ERL / 225 / A / Finish
XDL / ERL / 300 / A / Finish
XDL / ERL / 450 / A / Finish
XDL / ERL / 600 / A / Finish
XDL / ERL / 750 / A / Finish
XDL / ERL / 900 / A / Finish
XDL / ERL / 1000 / A / Finish



XDL-Ladderscan also be connected by adjustable vertical connectors to function as risers. For details refer page 152.

### XDL - INTERNAL RISER - 30° / 45° / 60° / 90°

PART REF
XDL / IRL / 150 / A / Finish
XDL / IRL / 225 / A / Finish
XDL / IRL / 300 / A / Finish
XDL / IRL / 450 / A / Finish
XDL / IRL / 600 / A / Finish
XDL / IRL / 750 / A / Finish
XDL / IRL / 900 / A / Finish
XDL / IRL / 1000 / A / Finish



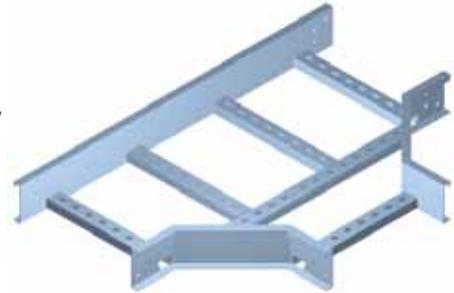
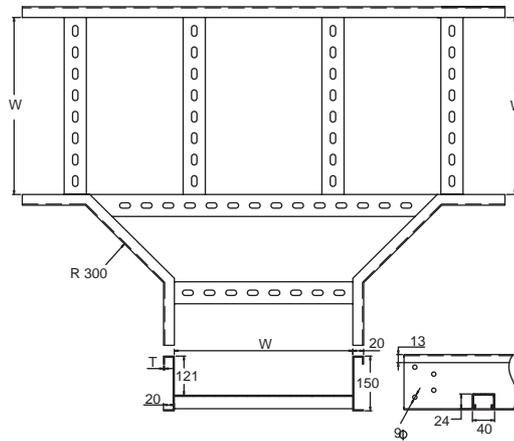
- Adjustable Riser for XD Ladders are produced on request and is specified by XDL / ARL / WIDTH / FINISH
- Risers are used where cables have to run upwards and downwards from their orientation.

**Note:** For special sizes, gauges, flanges, consult our sales team, factory  
To order the suitable fittings for installation, please refer cable tray fittings page 151 of this manual.

## XDL - TEE HORIZONTAL

### PART REF

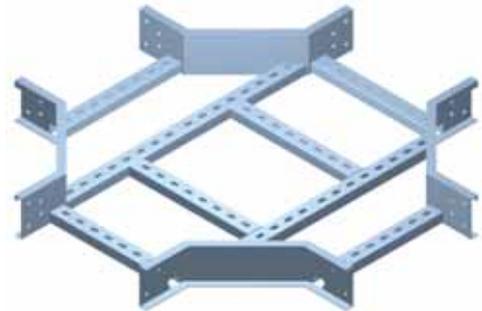
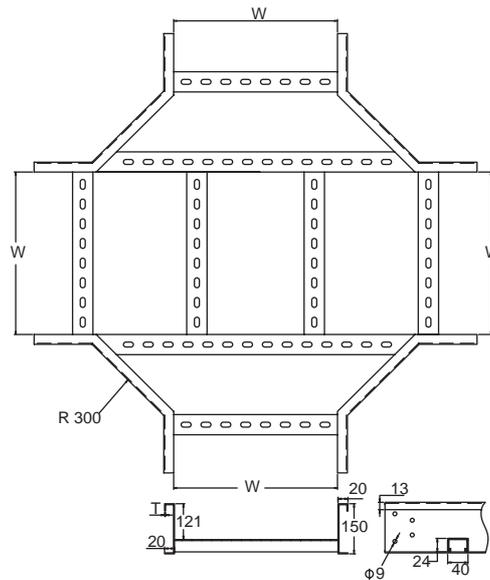
- XDL / THL / 150 / Finish
- XDL / THL / 225 / Finish
- XDL / THL / 300 / Finish
- XDL / THL / 450 / Finish
- XDL / THL / 600 / Finish
- XDL / THL / 750 / Finish
- XDL / THL / 900 / Finish
- XDL / THL / 1000 / Finish



## XDL - CROSS HORIZONTAL

### PART REF

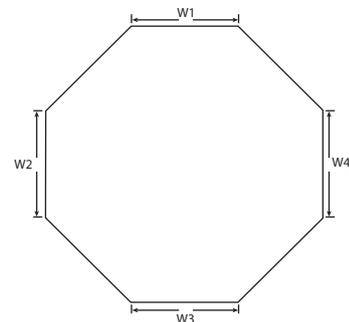
- XDL / CHL / 150 / Finish
- XDL / CHL / 225 / Finish
- XDL / CHL / 300 / Finish
- XDL / CHL / 450 / Finish
- XDL / CHL / 600 / Finish
- XDL / CHL / 750 / Finish
- XDL / CHL / 900 / Finish
- XDL / CHL / 1000 / Finish



## XDL - UN EQUAL CROSS

### PART REF

- XDL/UCHL/W1/W2/W3/W4/ Finish



For Un-Equal cross consider widths in anti-clockwise as shown in figure. Thickness to be followed of the largest size. Refer page 132.

**Note:** *Un-Equal Tee/Cross can be used in places to accommodate ladders of different widths at one location.*

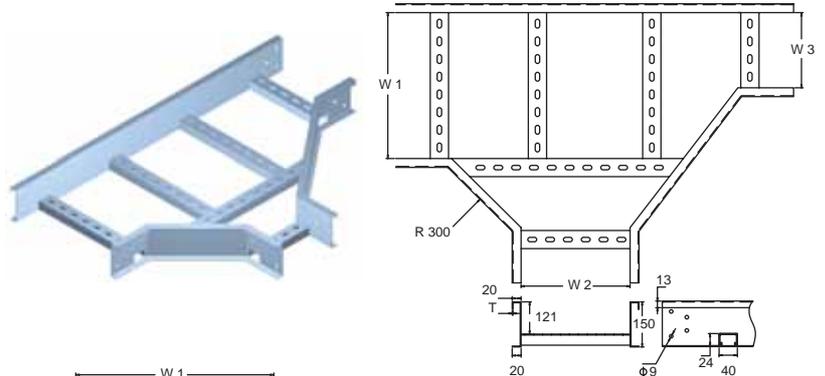
# EXTRA HEAVY DUTY METAL CABLE LADDERS

## XDL - UN-EQUAL TEE

### PART REF

XDL / UTL / W1 / W2 / W3 / Finish

For Unequal Tee consider width W1 / W2 / W3 in anticlockwise as shown. Thickness of UTHL to be followed of the larger size. Please refer to page 132.

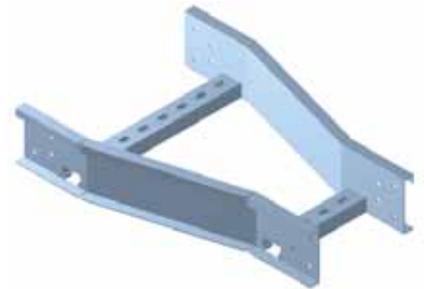
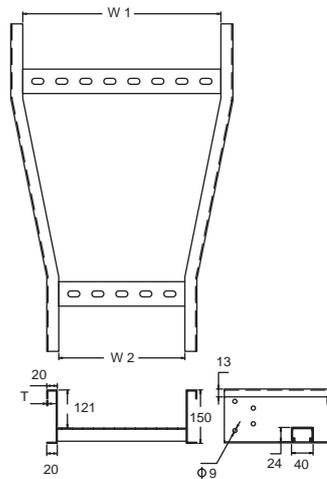


## XDL - REDUCER STRAIGHT

### PART REF

XDL / RSL / W1 / W2 / Finish

Reducing connectors can also be used as reducers depending on site requirements.

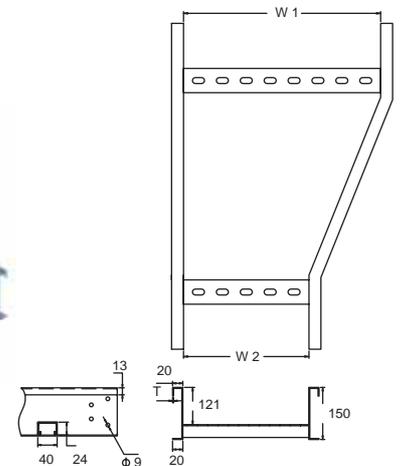


## XDL - REDUCER RIGHT

### PART REF

XDL / RRL / W1 / W2 / Finish

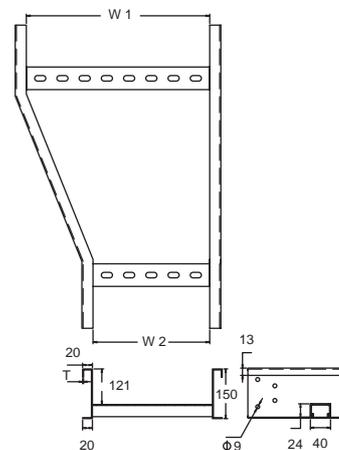
Reducer left/right are used where ladders have a limitation on run or left or right side.



## XDL- REDUCER LEFT

### PART REF

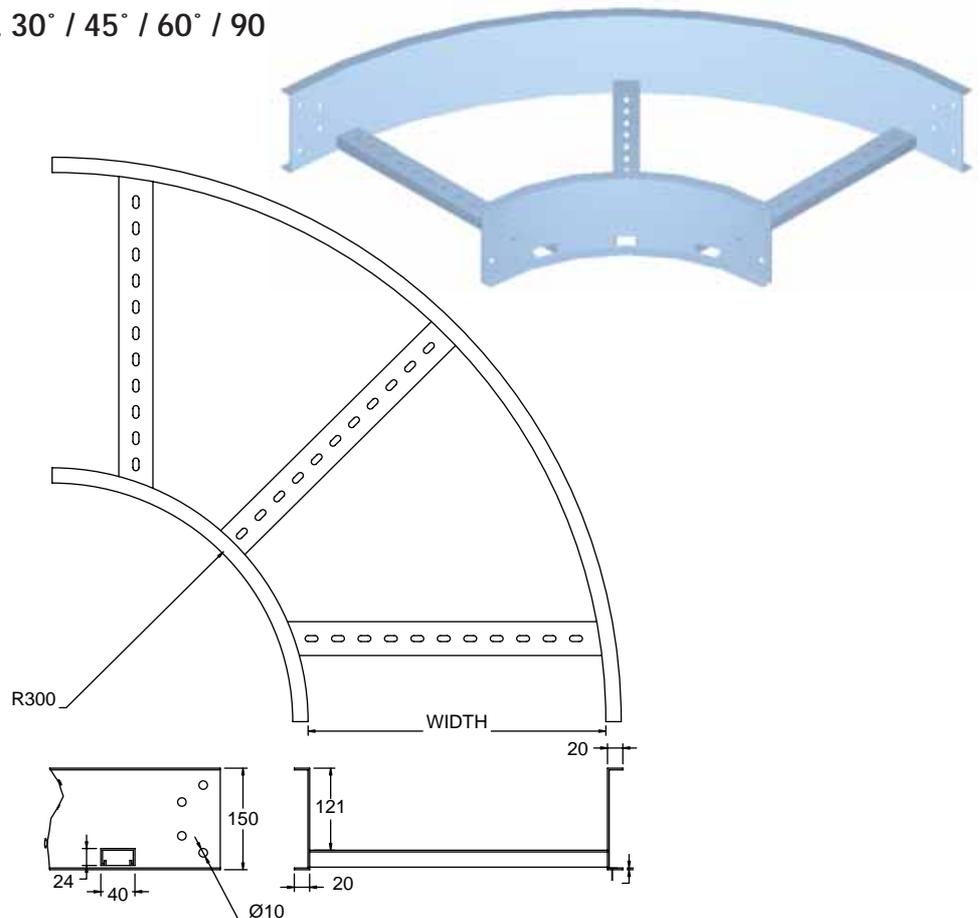
XDL / RLL / W1 / W2 / Finish



**Note:** Thickness of reducer to be followed of larger size .For details refer to page no. 132.  
For Accessories Cover details refer to page 144.

## XDL - ELBOW HORIZONTAL 30° / 45° / 60° / 90

PART REF
XDL / EHLR / 150 / A / Finish
XDL / EHLR / 225 / A / Finish
XDL / EHLR / 300 / A / Finish
XDL / EHLR / 450 / A / Finish
XDL / EHLR / 600 / A / Finish
XDL / EHLR / 750 / A / Finish
XDL / EHLR / 900 / A / Finish
XDL / EHLR / 1000 / A / Finish

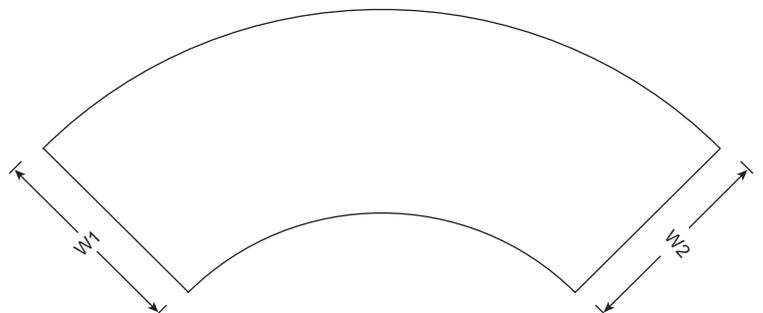


- For Thickness, Width, Rungs & Finishing details refer page 132
- PSI Round Radial Accessory covers are produced on request. For details refer page 147

## XDL - UN-EQUAL ELBOW

PART REF
XDL / UEHLR / W1/ W2 / A / Finish

For Un-Equal elbow specific widths W1 and W2 as shown in figure. Thickness to be followed of the larger size. Refer page 132.

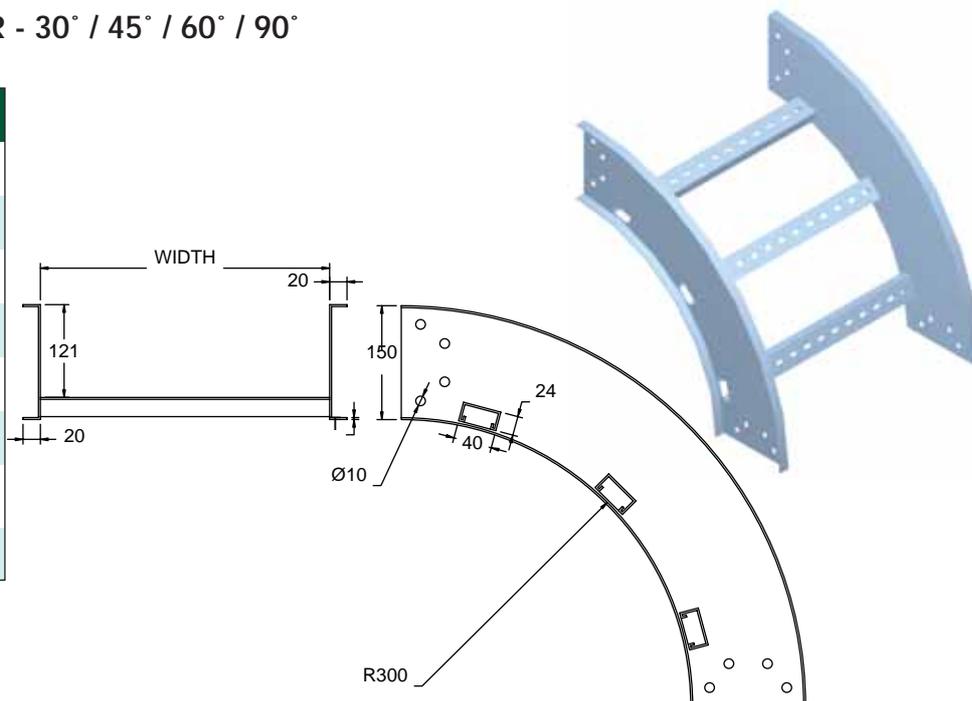


- Adjustable elbow can be used for installation at desired angles depending on site applications.
- Hinged connectors can also be used for installation at desired angles. For details refer to page 154.
- Extra Heavy duty cable ladders and accessories are joined together by connectors. For details refer page 133.
- Bonding jumpers are used for earthing connectivity. Refer to page 154.
- For special sizes, gauges, flanges consult our sales team, factory.

# EXTRA HEAVY DUTY METAL CABLE LADDERS ROUND RADIAL ACCESSORIES

## XDL - EXTERNAL RISER - 30° / 45° / 60° / 90°

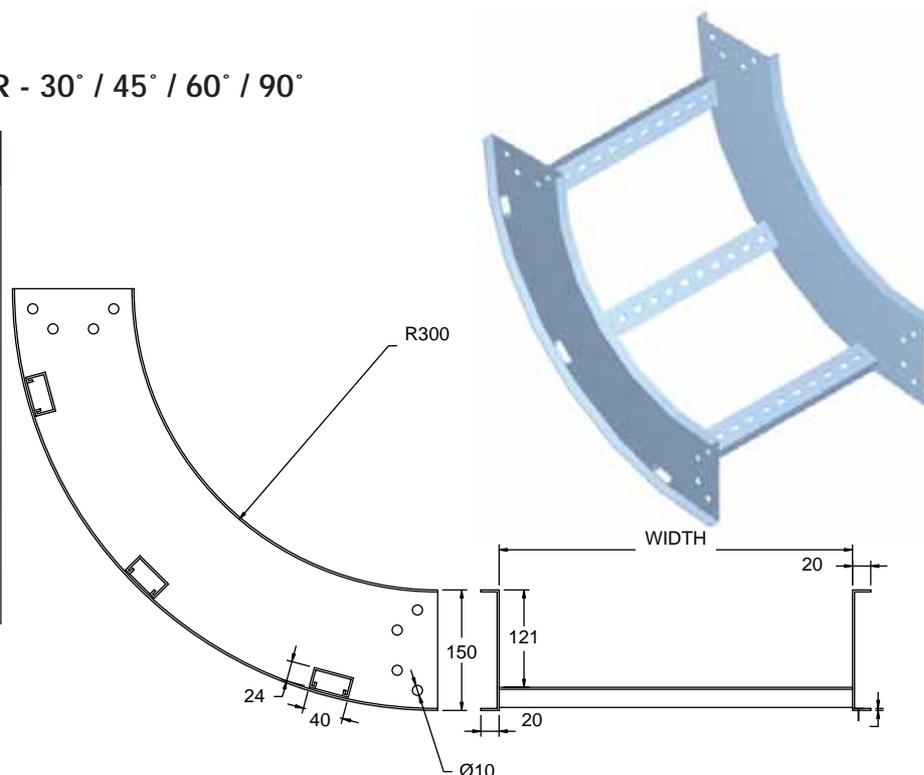
PART REF
XDL / ERLR / 150 / A / Finish
XDL / ERLR / 225 / A / Finish
XDL / ERLR / 300 / A / Finish
XDL / ERLR / 450 / A / Finish
XDL / ERLR / 600 / A / Finish
XDL / ERLR / 750 / A / Finish
XDL / ERLR / 900 / A / Finish
XDL / ERLR / 1000 / A / Finish



XDL Round Radial Accessories can be joined by connectors . For details refer page 133  
XDL-Ladders can also be connected by adjustable vertical connectors to function as risers.For details refer page 152.

## XDL - INTERNAL RISER - 30° / 45° / 60° / 90°

PART REF
XDL / IRLR /150 / A / Finish
XDL / IRLR / 225 / A / Finish
XDL / IRLR /300 / A / Finish
XDL / IRLR /450 / A / Finish
XDL / IRLR /600 / A / Finish
XDL / IRLR /750 / A / Finish
XDL / IRLR /900 / A / Finish
XDL / IRLR /1000 / A / Finish



- Adjustable Riser for XD Ladders are produced on request and is specified by XDL / ARL / WIDTH / FINISH
- Risers are used where cables have to run upwards and downwards from their orientation.

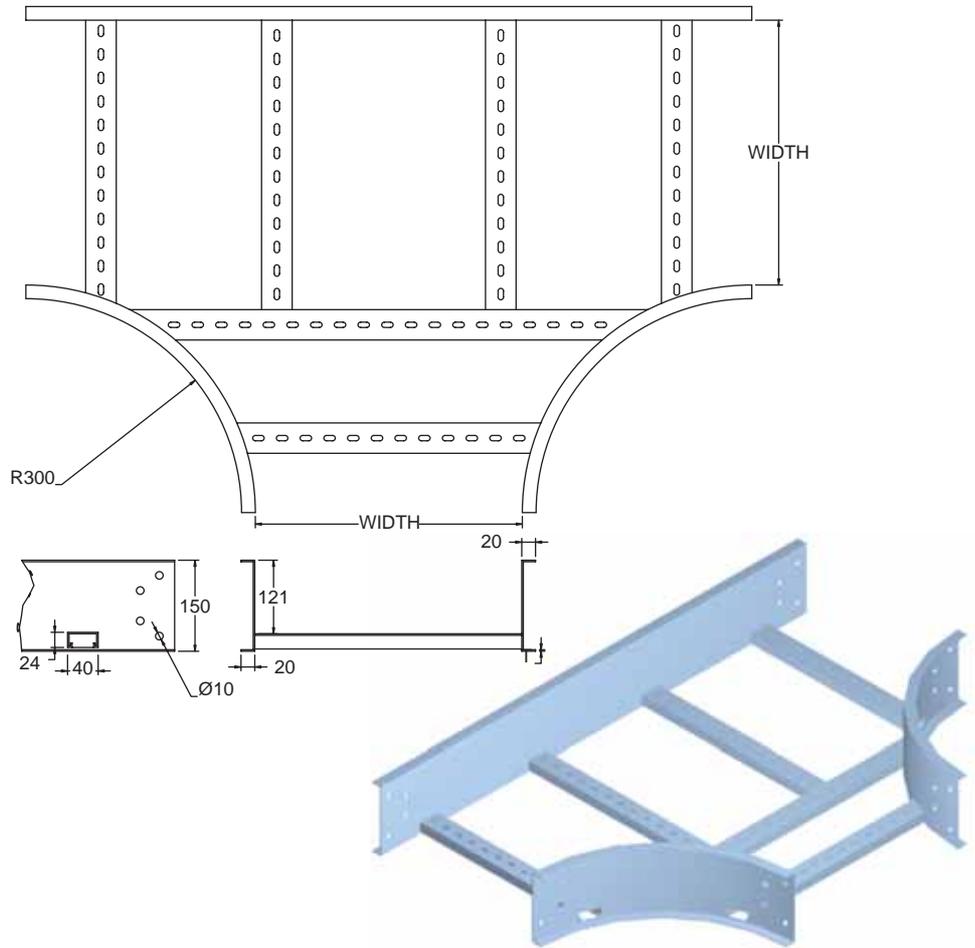
**Note:** For special sizes, gauges, flanges, consult our sales team, factory  
To order the suitable fittings for installation, please refer cable tray fittings page 151 of this manual.



# EXTRA HEAVY DUTY METAL CABLE LADDERS ROUND RADIAL ACCESSORIES

## XDL - TEE HORIZONTAL

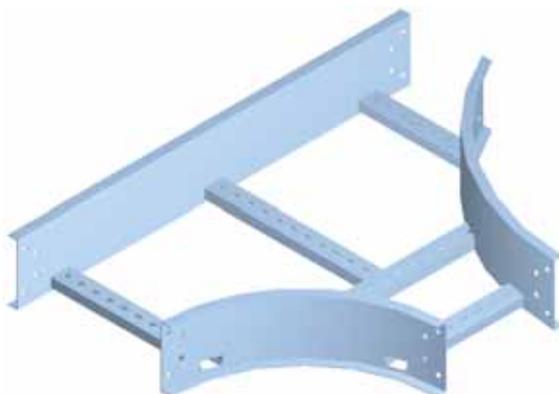
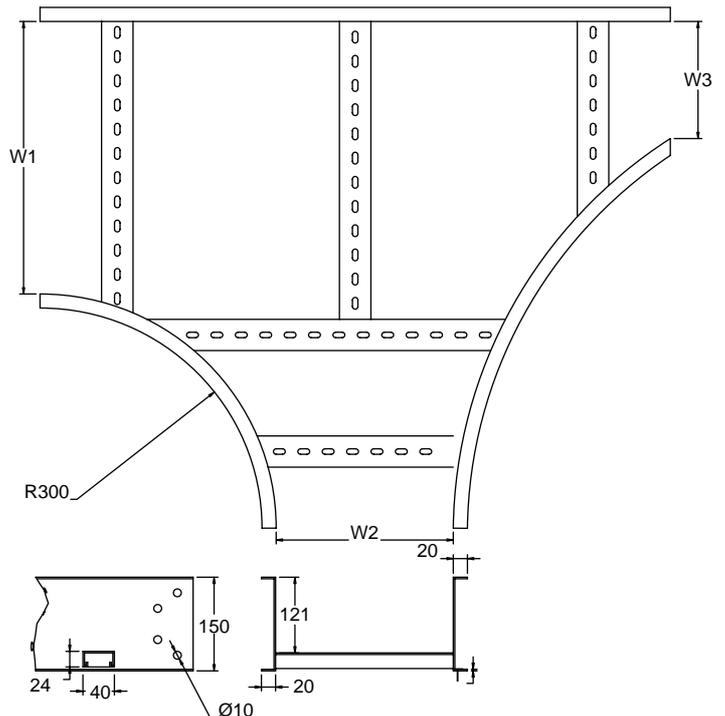
PART REF
XDL / THLR / 150 / Finish
XDL / THLR / 225 / Finish
XDL / THLR / 300 / Finish
XDL / THLR / 450 / Finish
XDL / THLR / 600 / Finish
XDL / THLR / 750 / Finish
XDL / THLR / 900 / Finish
XDL / THLR / 1000 / Finish



## XDL - UN-EQUAL TEE

PART REF
XDL / UTHLR / W1 / W2 / W3 / Finish

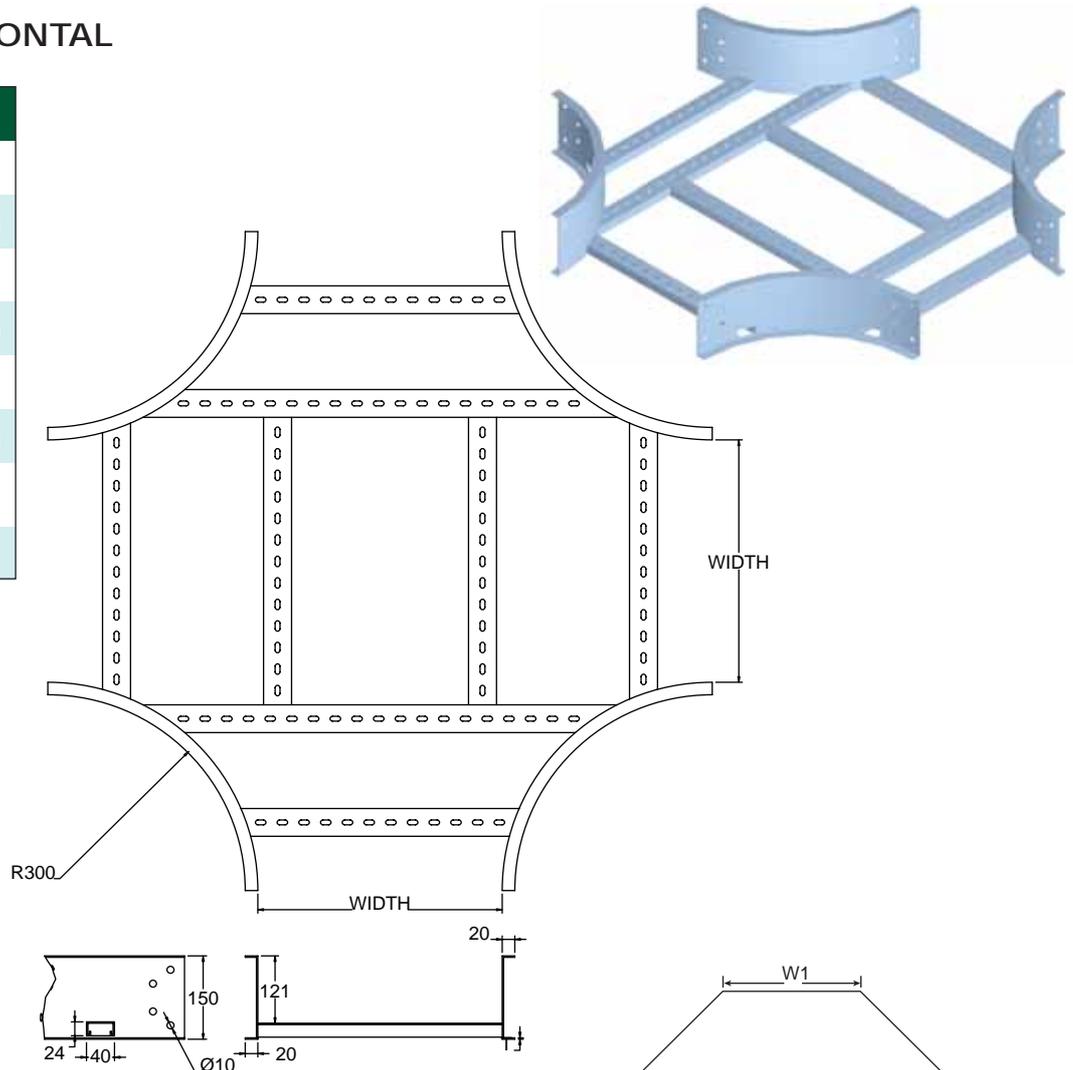
For Unequal Tee consider width W1 / W2 / W3 in anticlockwise as shown. Thickness of UTHLR to be followed of the larger size. Please refer to page 132.



# EXTRA HEAVY DUTY METAL CABLE LADDERS ROUND RADIAL ACCESSORIES

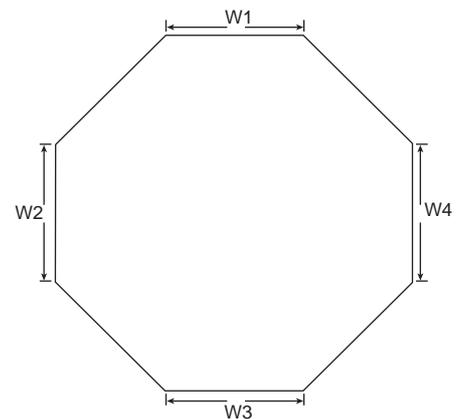
## XDL - CROSS HORIZONTAL

PART REF
XDL / CHLR / 150 / Finish
XDL / CHLR / 225 / Finish
XDL / CHLR / 300 / Finish
XDL / CHLR / 450 / Finish
XDL / CHLR / 600 / Finish
XDL / CHLR / 750 / Finish
XDL / CHLR / 900 / Finish
XDL / CHLR / 1000 / Finish



## XDL - UN EQUAL CROSS

PART REF
XDL/UCHLR/W1/W2/W3/W4/ Finish



- For UnEqual cross consider widths in anti-clockwise as shown in figure. Thickness to be followed of the larger size. Refer page 132.
- For Thickness, Width, Rungs and Finishing details, refer page 132
- XDL Round Radial Accessories are joined by connectors. For details refer page 133
- For XDL reducer details, refer page 138
- Thickness of reducer to be followed of larger size .For details refer to page no. 132.
- For Accessories Cover details refer to page 147.

### Note:

*Un-Equal Tee/Cross can be used in places to accomodate ladders of different widths at one location.*



# EXTRA HEAVY DUTY METAL CABLE LADDERS

## WEIGHT OF THE COMPONENTS

### XDL CABLE LADDER

WIDTH(mm)	WT. (Kgs.)
150	24.210
225	25.705
300	27.136
450	30.093
600	32.998
750	35.923
900	38.828
1000	40.789

### COVERS FOR STRAIGHT LENGTHS

WIDTH(mm)	WT. (Kgs.)
150	5.692
225	7.664
300	9.635
450	16.282
600	21.009
750	32.160
900	38.065
1000	42.008

### STRAIGHT CONNECTOR

WIDTH(mm)	WT. (Kgs.)
150 to 1000	0.294

### XDL - ELBOW HORIZONTAL

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
150	2.396	4.155
225	2.989	5.046
300	3.562	5.915
450	5.194	8.618
600	6.519	10.674
750	7.844	12.741
900	10.081	16.642
1000	11.056	18.221

### XDL - EXTERNAL RISER

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
150	3.424	6.212
225	3.795	6.667
300	4.155	7.102
450	4.876	7.982
600	5.607	8.851
750	6.339	9.731
900	7.060	10.611
1000	7.547	11.204

### XDL - TEE HORIZONTAL

WIDTH(mm)	WT. (Kgs.)
150	8.427
225	9.296
300	10.165
450	12.847
600	16.133
750	18.465
900	22.652
1000	24.422

### XDL - CROSS HORIZONTAL

WIDTH(mm)	WT. (Kgs.)
150	10.717
225	11.724
300	12.667
450	15.476
600	18.804
750	21.401
900	25.461
1000	29.214

### XDL - INTERNAL RISER

WIDTH (mm)	WEIGHT IN KGS.	
	45°	90°
150	3.424	6.212
225	3.795	6.667
300	4.155	7.102
450	4.876	7.982
600	5.607	8.851
750	6.339	9.731
900	7.060	10.611
1000	7.547	11.204

## CABLE LADDER COVERS

- Cable Ladder Accessory Covers are produced to suit different accessories of PSI Ladder System.
- Thickness of the covers should be followed according to sizes provided in the beginning of the respective types.

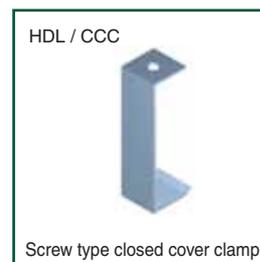
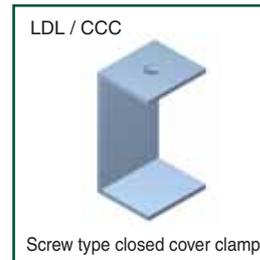
### CLOSED COVER CLAMP

**LDL/CCC** Screw type closed cover clamp is supplied in 3 mm thickness for closed cover arrangement with M6 x 12 roofing bolt. To be ordered separately.

**MDL / CCC** Screw type closed cover clamp is supplied in 3mm thickness for closed cover arrangement with the set of M6 x 15 hexagonal bolt & washer. To be ordered separately.

**HDL/CCC** Screw type closed cover clamp is supplied in 3mm thickness for closed cover arrangement with the set of M6 x 15 hexagonal bolts & washers. To be ordered separately.

**XDL/CCC** Screw type closed cover clamp is supplied in 3 mm thickness for closed cover arrangement with M6 x 20 hexagonal bolt. To be ordered separately



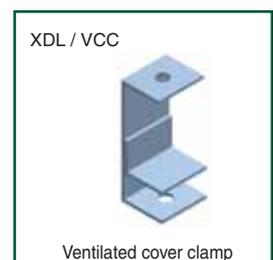
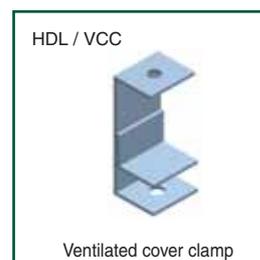
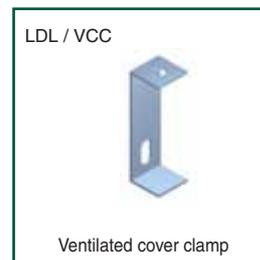
### VENTILATED COVER CLAMP

**LDL/VCC** Ventilated cover clamp is supplied in 2mm thickness for Ventilated cover arrangement with the set of M6 x 12 roofing bolts nuts & washers. To be ordered separately.

**MDL / VCC** Ventilated cover clamp is supplied in 2mm thickness for Ventilated cover arrangement with the set of M6 x 12 roofing bolts, nuts & washers. To be ordered separately

**HDL / VCC** Ventilated cover clamp is supplied in 3 mm thickness for Ventilated cover arrangement with the set of M6 x 12 roofing bolts, nuts, washers & hexagonal bolt M6 x 20. To be ordered separately

**XDL/VCC** Ventilated cover clamp is supplied in 3 mm thickness for Ventilated cover arrangement with the set of M6 x 12 roofing bolt, nut & washer and hexagonal bolt M6 x 20. To be ordered separately



# CABLE LADDER COVERS

## ELBOW HORIZONTAL CLOSED COVER

### PART REF

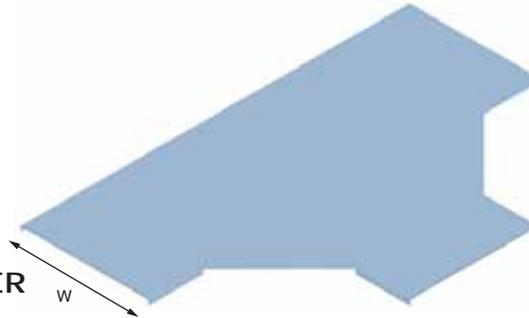
Type / EHLCC / Width / A / Finish



## ELBOW HORIZONTAL VENTILATED COVER

### PART REF

Type / EHLVC / Width / A / Finish



## TEE HORIZONTAL CLOSED COVER

### PART REF

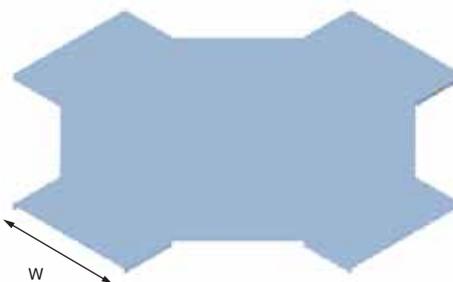
Type / THLCC / Width / Finish



## TEE HORIZONTAL VENTILATED COVER

### PART REF

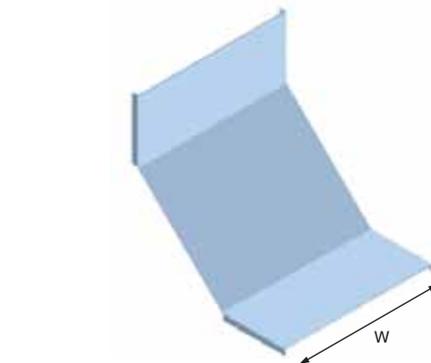
Type / THLVC / Width / Finish



## CROSS HORIZONTAL CLOSED COVER

### PART REF

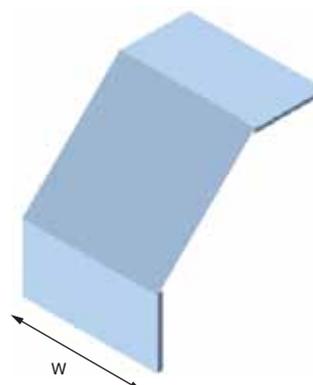
Type / CHLCC / Width / Finish



## CROSS HORIZONTAL VENTILATED COVER

### PART REF

Type / CHLVC / Width / Finish



## INTERNAL RISER CLOSED COVER

### PART REF

Type / IRLCC / Width / A / Finish

## INTERNAL RISER VENTILATED COVER

### PART REF

Type / IRLVC / Width / A / Finish

## EXTERNAL RISER CLOSED COVER

### PART REF

Type / ERLCC / Width / A / Finish

## EXTERNAL RISER VENTILATED COVER

### PART REF

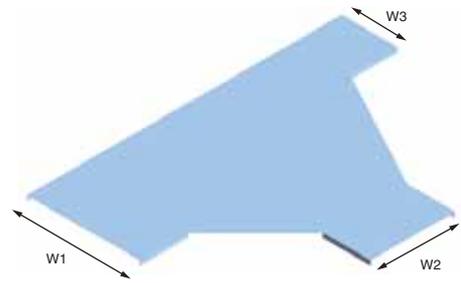
XDL / ERLVC / Width / A / Finish

# CABLE LADDER COVERS

## UN-EQUAL TEE CLOSED COVER

### PART REF

Type / UTHLCC / W1 / W2 / W3 / Finish



## UN-EQUAL TEE VENTILATED COVER

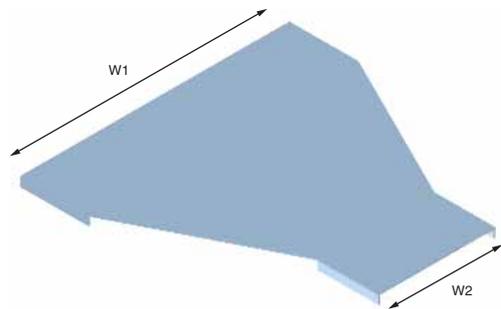
### PART REF

Type / UTHLVC / W1 / W2 / W3 / Finish

## REDUCER STRAIGHT CLOSED COVER

### PART REF

Type / RSLCC / W1 / W2 / Finish



## REDUCER STRAIGHT VENTILATED COVER

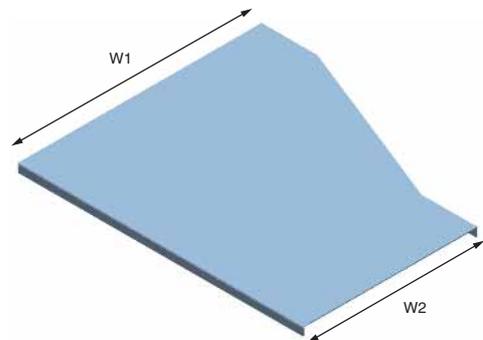
### PART REF

Type / RSLVC / W1 / W2 / Finish

## REDUCER RIGHT CLOSED COVER

### PART REF

Type / RRLCC / W1 / W2 / Finish



## REDUCER RIGHT VENTILATED COVER

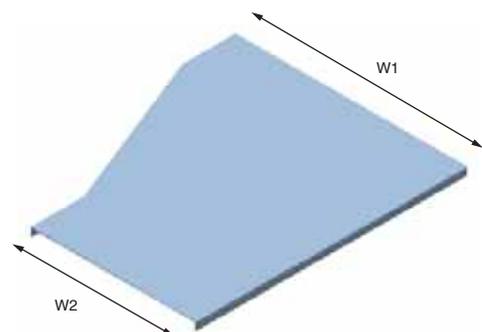
### PART REF

Type / RRLVC / W1 / W2 / Finish

## REDUCER LEFT CLOSED COVER

### PART REF

Type / RLLCC / W1 / W2 / Finish



## REDUCER LEFT VENTILATED COVER

### PART REF

Type / RLLVC / W1 / W2 / Finish



## CABLE LADDER ROUND RADIAL ACCESSORY COVERS

### ELBOW HORIZONTAL CLOSED COVER

#### PART REF

Type / EHLRCC / Width / A / Finish

### EXTERNAL RISER CLOSED COVER

#### PART REF

Type / ERLRCC / Width / A / Finish

### ELBOW HORIZONTAL VENTILATED COVER

#### PART REF

Type / EHLRVC / Width / A / Finish

### EXTERNAL RISER VENTILATED COVER

#### PART REF

XDL / ERLRVC / Width / A / Finish

### TEE HORIZONTAL CLOSED COVER

#### PART REF

Type / THLRCC / Width / Finish

### UN-EQUAL TEE CLOSED COVER

#### PART REF

Type / UTHLRCC / W1 / W2 / W3 / Finish

### TEE HORIZONTAL VENTILATED COVER

#### PART REF

Type / THLRVC / Width / Finish

### UN-EQUAL TEE VENTILATED COVER

#### PART REF

Type / UTHLRVC / W1 / W2 / W3 / Finish

### CROSS HORIZONTAL CLOSED COVER

#### PART REF

Type / CHLRCC / Width / Finish

### CROSS HORIZONTAL VENTILATED COVER

#### PART REF

Type / CHLRVC / Width / Finish

### INTERNAL RISER CLOSED COVER

#### PART REF

Type / IRLRCC / Width / A / Finish

### INTERNAL RISER VENTILATED COVER

#### PART REF

Type / IRLRVC / Width / A / Finish

- Specify the type in the beginning while ordering the cable ladder accessory covers.
- Thickness of the covers to be followed according to the sizes provided in the beginning of respective cable ladder types.

For cover clamp details, refer page 144.

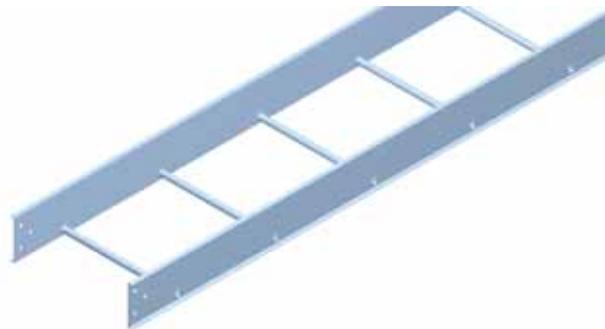
# METAL CABLE LADDERS SWAGED RUNGS

## CABLE LADDERS - SWAGED RUNGS

PART REF
TYPE / CLS / Width / Finish

### TYPES

- MDL Medium Duty Ladder
- HDL Heavy Duty Ladder
- XDL Extra Heavy Duty Ladder



### ORDER PATTERN

To select the required type of ladder, please specify the type width & finish.

EXAMPLE FOR MEDIUM DUTY SWAGED LADDER 600 MM WIDE & HOT DIP GALVANIZED

MDL / CLS / 600 / HDG

### CONNECTORS

Cable ladders with swaged rungs are joined together by straight connectors. Connectors are supplied in pairs with a set of M8 x 16 carriage bolts, nuts and washers. Specify type while ordering connectors. To be ordered separately.

### CONNECTORS

PART REF
TYPE / SCL / Finish

### CONNECTORS

Width (mm)	Thickness (mm)
150 to 1000	2.0

### RUNG DETAILS

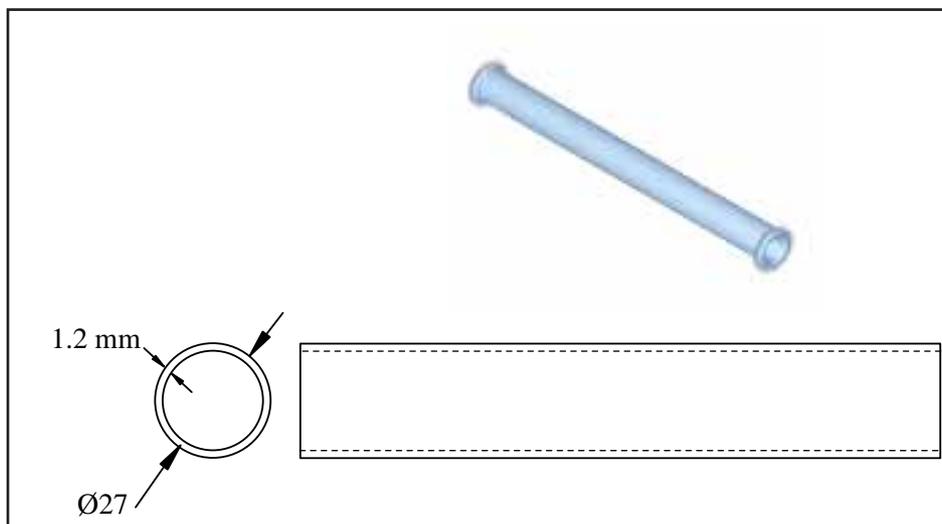
Range / Width (W)	Thickness (T)
All dimensions are in mm	
150 to 1000	1.2

### RUNGS

Round tubular rungs are used for swaged type ladders made out of 25 mm to 27 mm dia hollow pipe.

### Rung Spacing

The standard rung spacing is 300mm. Optional Rung spacing 150mm, 250mm.



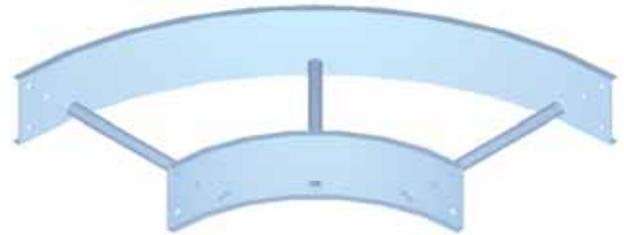
**Note:** Expansion connectors are also provided to ease the installation process on site. For details refer page 153.

## ELBOW HORIZONTAL - SWAGED RUNGS

### PART REF

TYPE / EHLS / Width / Finish

For Un-Equal elbow specify widths W1 and W2. Thickness to be followed of the larger size.



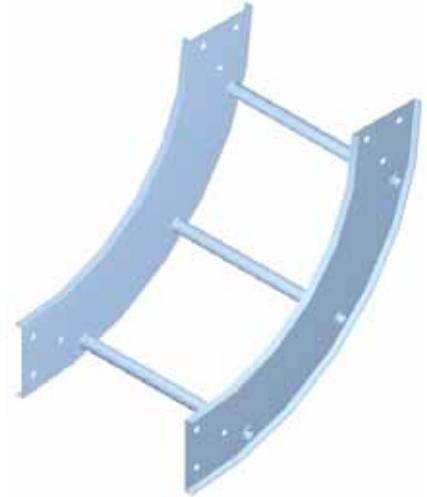
- Adjustable elbow can be used for installation at desired angles depending on site applications.

## INTERNAL RISER - SWAGED RUNGS

### PART REF

TYPE / IRLS / Width / Finish

Cable ladders can also be connected by adjustable vertical connectors to function as risers. For details refer page 152.



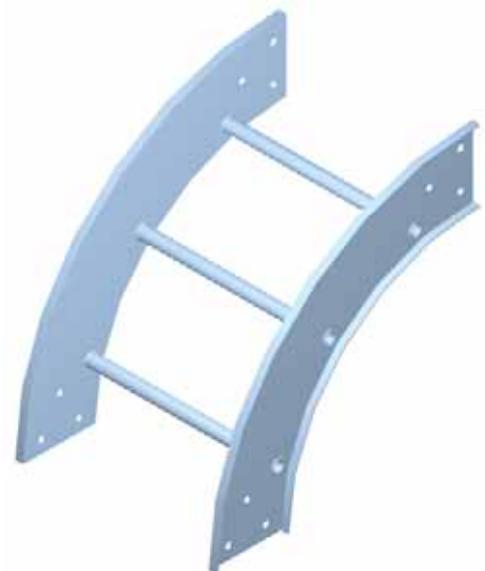
- Adjustable Riser for Cable Ladders are produced on request and is specified by TYPE / ARL / WIDTH / FINISH

## EXTERNAL RISER - SWAGED RUNGS

### PART REF

TYPE / ERLS / Width / Finish

Risers are used where cables have to run upwards and downwards from their orientation



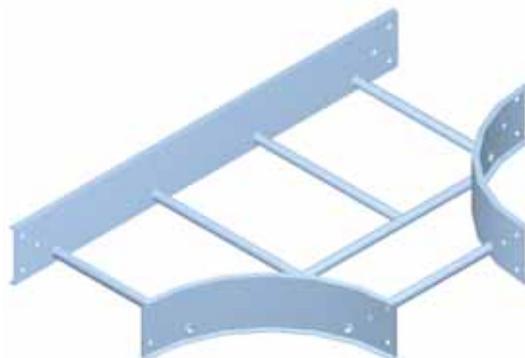
**Note:** For special sizes, gauges, flanges, consult our sales team, factory  
To order the suitable fittings for installation, please refer cable tray fittings page 151 of this manual

# METAL CABLE LADDERS SWAGED RUNGS

## TEE HORIZONTAL - SWAGED RUNGS

### PART REF

TYPE / THLS / Width / Finish



**Note:**

*Tee horizontal can be used in places to accommodate ladders of different widths at one location.*

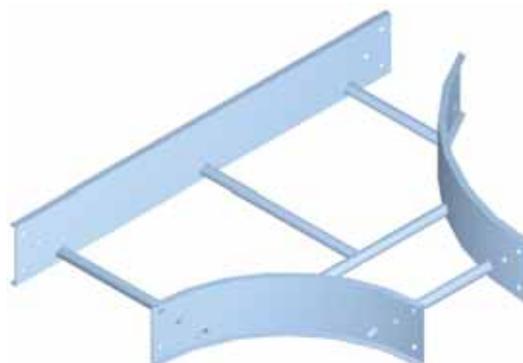
## UNEQUAL TEE - SWAGED RUNGS

### PART REF

TYPE / UTHLS / Width / Finish

**Note:**

For Unequal Tee consider width W1 / W2 / W3 in anticlockwise. Thickness of UTHL to be followed of the larger size.

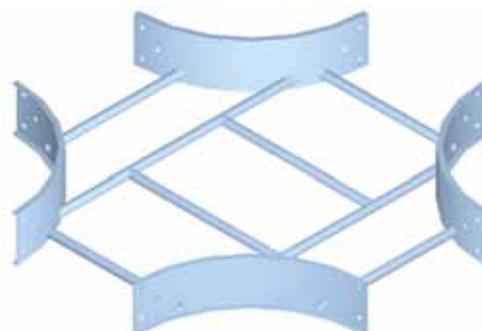


- *Un-Equal Tee can be used in places to accommodate ladders of different widths at one location.*

## CROSS HORIZONTAL - SWAGED RUNGS

### PART REF

TYPE / CHLS / Width / Finish



**Note:**

For UnEqual cross consider widths in anti-clockwise. Thickness to be followed of the larger size.

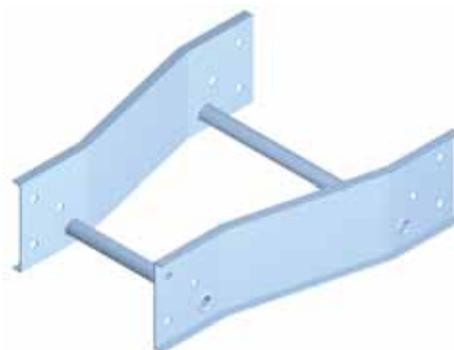
## REDUCER STRAIGHT - SWAGED RUNGS

### PART REF

TYPE / RSLs / Width / Finish

Reducing connectors can also be used as reducers depending on site requirements.

To order reducer left or reducer right, replace RSLs with RLLS & RRLS while ordering.





## CABLE LADDER FITTINGS

### FITTINGS FOR MDL /HDL/XDL - LADDERS

Cable ladder fittings mentioned in this chapter are produced to suit medium, heavy & extra heavy duty installations only.

### STANDARD FINISHES

HDG	Hot dip Galvanized to BS EN ISO 1461:1999 (Formerly BS 729)
PG	Pre-galvanized to BS EN 10142 & 10143
PC	Powder Coating to suit clients requirements
SS	Stainless steel finish to required grades

### TYPES

- MDL Medium Duty Ladder
- HDL Heavy Duty Ladder
- XDL Extra Heavy Duty Ladder

### ORDER PATTERN

To select the required component, please specify the component, type width & finish.

### EXAMPLE FOR BOX CONNECTOR

COMPONENT / TYPE / WIDTH / FINISH      BXC / HDL / WIDTH / HDG

For support system for the installation, please refer Metal strut framing system of this manual

**Note:** *For special finishes consult our sales team, factory*

*For special sizes, gauges, flanges, consult our sales team, factory*

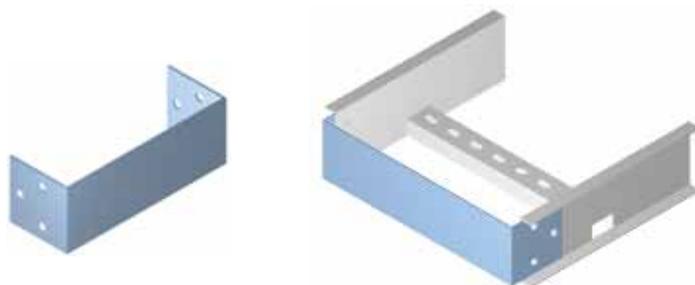
## CABLE LADDER FITTINGS

### BLIND END

#### PART REF

BEL / Type / Width / Finish

Standard thickness of Blind Ends for Ladder systems is 1.5 mm. Carriage bolt M8 x 16, nuts and washers are used for fastening.

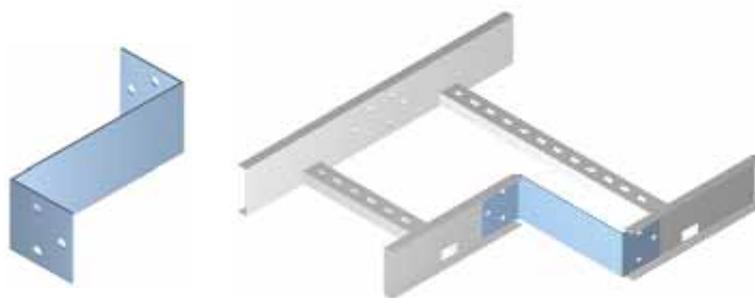


### REDUCING CONNECTOR

#### PART REF

RCL / Type / W1-W2 / Finish

Standard thickness of Reducing Connector for Ladder systems is 2.0 mm. Carriage bolt M8 x 16 nuts and washers are used for fastening.

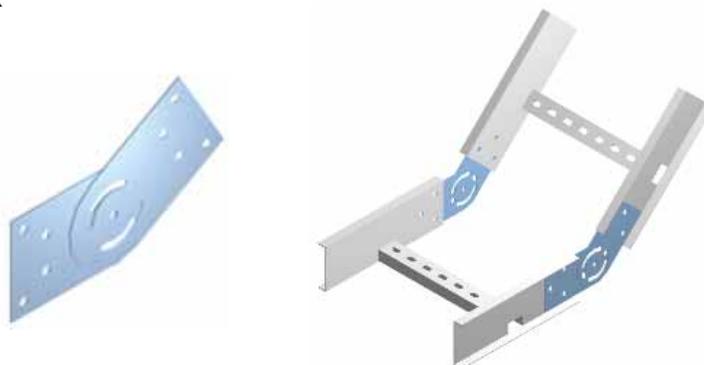


### ADJUSTABLE VERTICAL CONNECTOR

#### PART REF

AVCL / Type / W1-W2 / Finish

Standard thickness of Adjustable Vertical Connector for Ladder systems is 2.0 mm. Carriage bolt M8 x 16, nuts and washers are used for fastening.

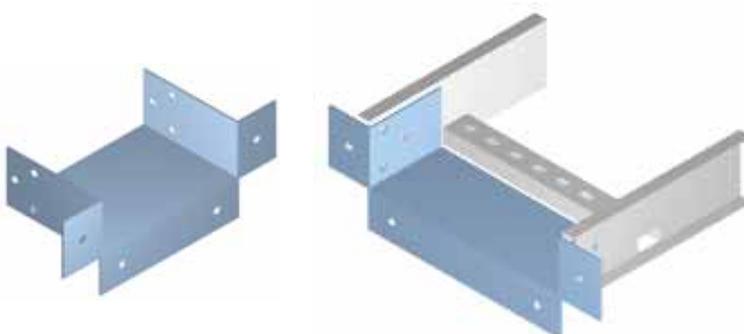


### BOX CONNECTOR

#### PART REF

BXCL / Type / Width / Finish

Standard thickness of Box Connector for Ladder systems is 2.0 mm. Carriage bolt M8 x 16, nuts and washers are used for fastening.

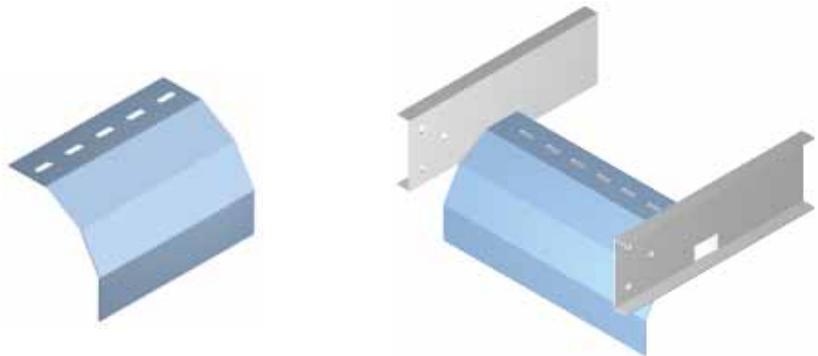


## DROP OUT

### PART REF

DOL / Width / Finish

Standard thickness of Drop out for Ladder systems is 2.0 mm. Carriage bolt M8 x 16, nuts and washers are used for fastening.

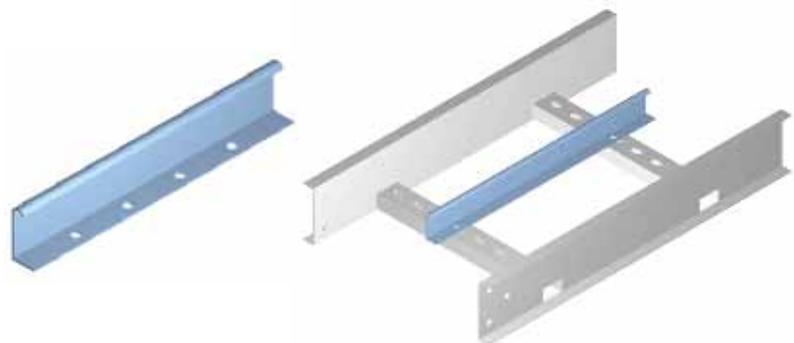


## BARRIER STRAIGHT

### PART REF

BSL / Type / Finish

Standard thickness of Barrier Straight for Ladder systems is 1.5 mm. Barrier Straights are produced in 3 mtr lengths and Carriage bolt M8 x 16, nuts and washers are used for fastening.

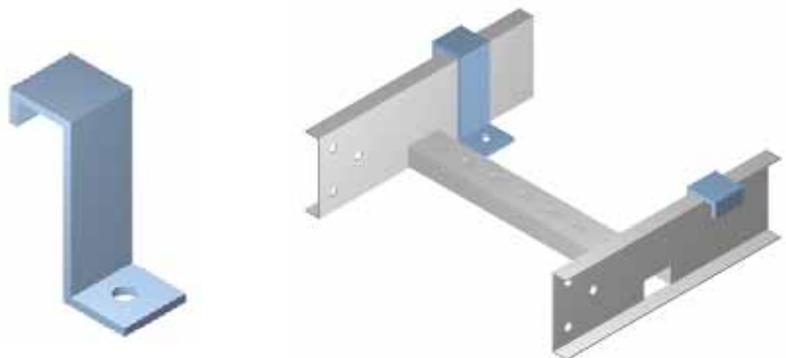


## HOLD DOWN BRACKET

### PART REF

HDBL / Type / Finish

Standard thickness of Hold down bracket for Ladder systems is 3.0 mm. Hexagonal bolt M10 x 25, nuts and washers are used for fastening. Spring nuts can also be used depending on site application.

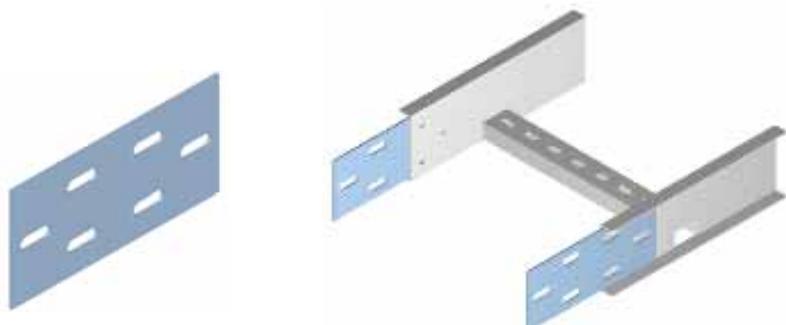


## EXPANSION CONNECTOR

### PART REF

EXCL / Type / Finish

Standard thickness of Expansion Connector for Ladder systems is 2.0 mm. Carriage bolt M8 x 16, nuts and washers are used for fastening.



## CABLE LADDER FITTINGS

### BONDING JUMPER

#### PART REF

BJL

AREA : 16 mm<sup>2</sup>

LENGTH : 145 mm from center to center

Bonding Jumper for Cable Ladder earthing connectivity is produced from braided tinned copper with M8 copper lugs on both sides. Carriage bolts M8 x 16 , nuts & washers are used for fastening. To be ordered separately.

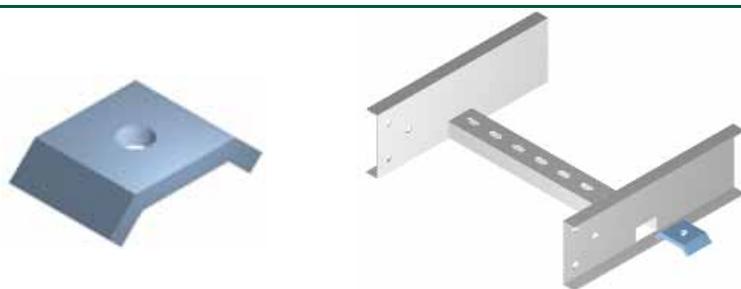


### HOLD DOWN CLAMP

#### PART REF

HDCL / Type / Finish

Standard thickness of Hold Down Clamp for Ladder systems is 5.0 mm. Hexagonal bolt M10 x 35, nuts and washers are used for fastening.

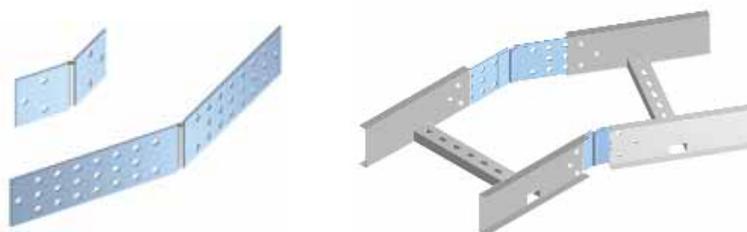


### HINGED CONNECTOR

#### PART REF

HC / Type / Finish

Standard thickness of Hinged Connector for Ladder systems is 2.0 mm. Carriage bolt M8 x 16 nuts and washers are used for fastening.

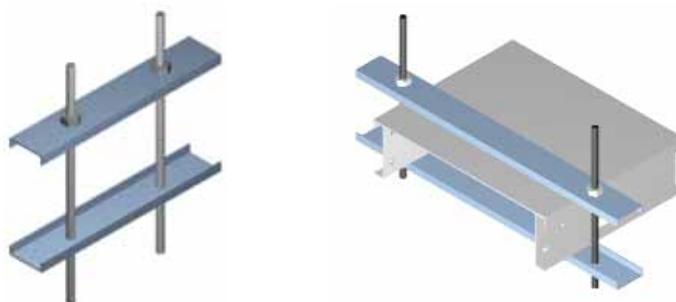


### DOUBLE COVER CLAMP

#### PART REF

BCC / Width / Finish

Standard thickness of Double Cover Clamp for Ladder systems is 2.0 mm and threaded rod M8, nuts and washers are used for fastening.

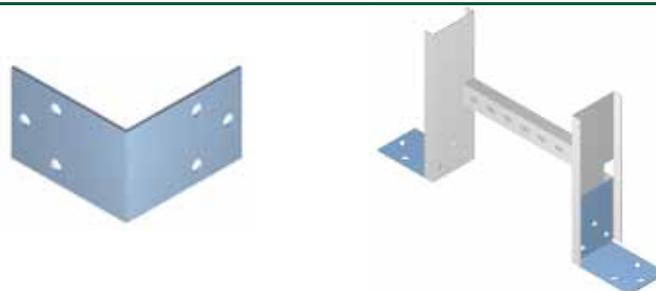


### RIGHT ANGLE CONNECTOR

#### PART REF

RAL / Type / Finish

Standard thickness of Right Angled Connector for Ladder systems is 2.0 mm. Carriage bolt M8 x 16 nuts and washers are used for fastening.





# CABLE LADDER LOAD GRAPHS

## SAFE WORKING LOADS

The following Loading Charts are to give guidance on maximum safe working loads when using Cable Ladders & Trays (installed horizontally) produced by PSI. They are published in accordance with the requirements of the industry standard BS EN 61537:2001. Load tests simulated the conditions of a multiple span of at least 4 spans with the end spans reduced to 75% of the intermediate spans.

The graphical presentation links established maximum safe working loads at specified intermediate spans.

Loads below the drawn line are SAFE - loads above the drawn line are UNSAFE.

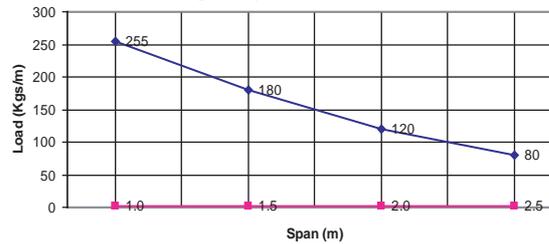
When using this information the installer should take into account:

1. The guidance offered in our presentation of system design considerations should be studied
2. Loading is assumed to be uniformly distributed. If point loads are imposed or the installation is less than 4 spans our technical department should be consulted.
3. The graphs should not be extrapolated to shorter or longer spans than those shown.
4. The installer should be satisfied that supports are of adequate strength and that all connections are fully tightened.
5. The loading information is given in good faith based on tests carried out with PSI products. However, PSI cannot be held responsible for a variation in performance of this product range.

## WARNING!

**PSI CABLE TRAYS & LADDERS ARE PART OF A CABLE MANAGEMENT SYSTEM. THEY SHOULD NEVER BE USED FOR OTHER STRUCTURAL PURPOSES AND MUST NOT BE USED AS WALKWAYS BY INSTALLATION OR MAINTENANCE PERSONNEL.**

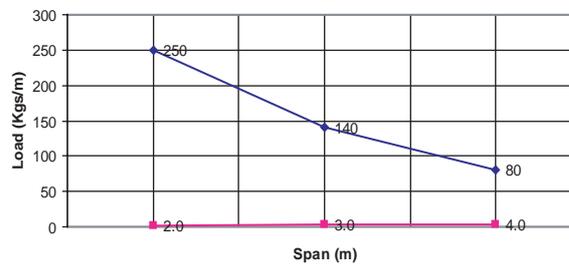
Light Duty Metal Cable Ladders



LDL

Uniformly Distributed Load (Kgs/m)	Span - between supports (m)
255	1.0
180	1.5
120	2.0
80	2.5

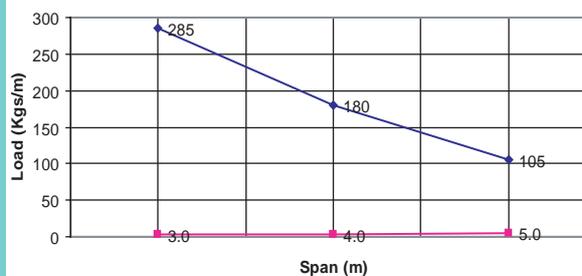
Medium Duty Metal Cable Ladder



MDL

Uniformly Distributed Load (Kgs/m)	Span - between supports (m)
250	2.0
140	3.0
80	4.0

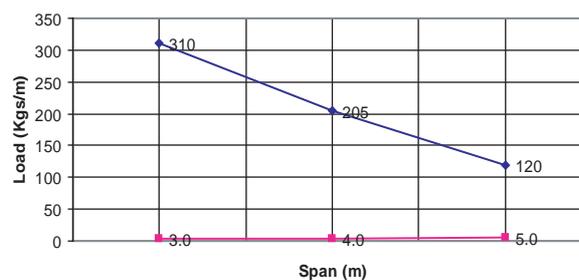
Heavy Duty Metal Cable Ladder



HDL

Uniformly Distributed Load (Kgs/m)	Span - between supports (m)
285	3.0
180	4.0
105	5.0

Extra Heavy Duty Metal Cable Ladder



XDL

Uniformly Distributed Load (Kgs/m)	Span - between supports (m)
310	3.0
205	4.0
120	5.0



**CABLE TRUNKING SYSTEMS**



## TRUNKING CAPACITY GUIDE

The following guide will help you to select the correct size of trunking for the required number and size of cables in your installation. It has been prepared from Appendix 12 of the I.E.E wiring regulations for electrical installations. When cables are pulled into trunking they experience a drag from other cables and from the trunking itself. Using this guide to select the size of trunking for your cabling will ensure that an acceptable pulling force is required to install the cables and that minimum damage to the installations will occur. This is only a guide and is designed for use with single core PVC insulated

### TO USE THIS GUIDE

- Calculate Capacity unit by multiplying the Number of cables by the factor from Table A
- Use capacity unit to choose nearest size of trunking from table B
- Remember that cables can cross over each other and that you may need space for future wiring. Consequently, select the next size up.

REFERENCE			
NUMBER OF CABLES	CONDUCTOR CROSS SECTION MM <sup>2</sup>	FACTOR (FROM A)	CAPACITY UNIT (FROM B)
50	1.5 Stranded	8.1	405
40	2.5 Stranded	11.4	456
20	6.0 Stranded	22.9	458
		Total	1319

From table B, the capacity Unit of 1319 falls between 50 x 50 mm and 75 x 50 mm trunking.

TABLE A		
TYPE OF CONDUCTOR	CONDUCTOR CROSS SECTION	FACTOR
Solid	1.5	7.1
	2.5	10.2
Stranded	1.5	8.1
	2.5	11.4
	4	15.2
	6	22.9
	10	36.3
	16	42.9
	25	62.6
	35	95

TABLE B	
CAPACITY UNIT	DIMENSION OF TRUNKING MMXMM
738	75 X 25
993	100 X 25
1037	50 X 50
1555	75 X 50
2091	100 X 50
2371	75 X 75
3162	150 X 50
3189	100 X 75
4252	100 X 100
4743	150 X 75
9697	150 X 150

**Note:** For sizes and types of cables not included in the above tables A and B calculate total cross section of cables and select trunking size so that not more than 45% of trunking is filled.



## SURFACE CABLE TRUNKING

### FOR STRAIGHT LENGTHS & ACCESSORIES

#### STANDARD FINISHES

PG Pre-galvanized to BS EN 10142 & 10143

PC Power Coating to suit clients requirements

- PSI - Cable Trunkings are manufactured complying to BS 4678 Part1
- PSI - Cable Trunkings are manufactured to a standard length of 3 mts but can be produced to any desired length also on request.
- PSI Cable Trunkings are manufactured with jet lock & screw fixing covers. Jet lock arrangement requires only a quarter rotation of the turn buckle for fixings.
- PSI Cable Trunking straight lengths are joined by connectors. Connectors are supplied in pairs with trunkings along with necessary fasteners For details refer page
- PSI-Cable Trunking Accessories are produced out of single piece and require no welding. Accessories are produced with integral connectors & require no separate connectors for joining.
- PSI-Cable Trunking Accessories are manufactured to a standard radius of 300mm, but can be produced to the radius of 600mm & 900mm also, on request.
- PSI-Cable Trunkings can be produced with different thickness also for custom designed requirements.

#### ORDER PATTERN

J:- Jet lock Arrangement

S: Screw fixing Arrangement

#### Example

Single Chamber jet lock trunking 100mm wide & 100mm side height:- J-C/T 4-4

Double Chamber jet lock trunking 100mm, wide 100mm side height :- J-2C/T 4-4

#### NOTE:

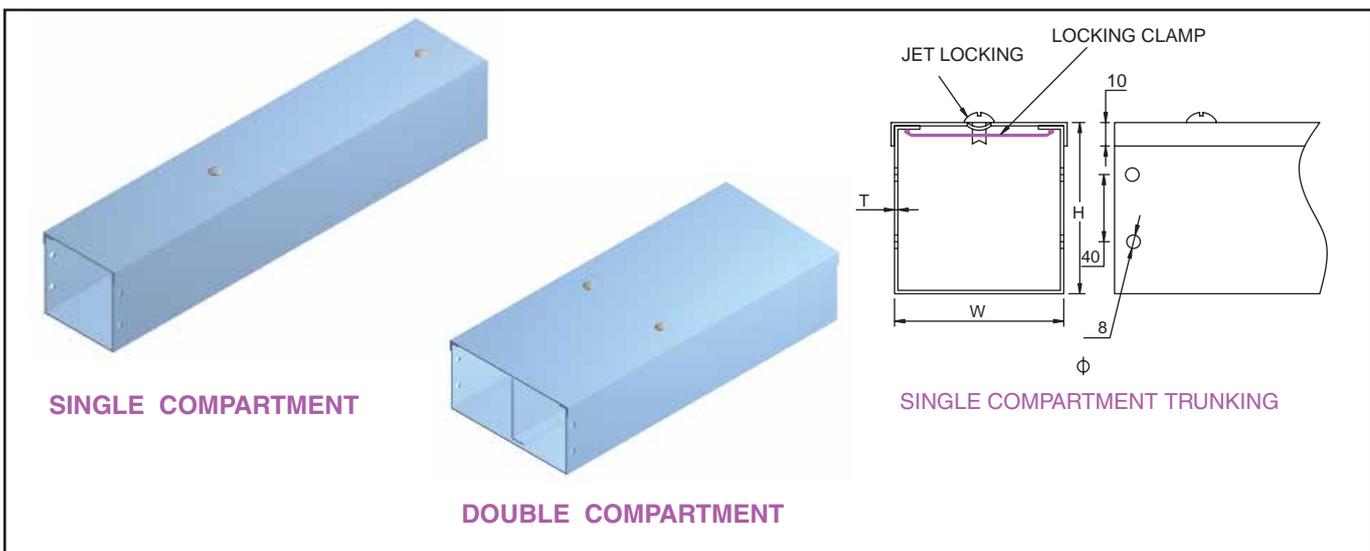
*Use 'J' as prefix while ordering jetlock arrangements and 'S' as prefix while ordering screw fixing arrangements & 2C or 3C for ordering two or three compartments.*

*PSI - Cable Trunkings are manufactured in Single & Multi-Compartments also.*

## STRAIGHT LENGTHS

### JET LOCK ARRANGEMENT

WIDTH mm	HEIGHT mm	THICKNESS mm	SINGLE COMPARTMENT	TWO COMPARTMENT	THREE COMPARTMENT
50	50	1.0	J-C / T2-2	J-2C / T2-2	J-3C / T2-2
75	50	1.2	J-C / T3-2	J-2C / T3-2	J-3C / T3-2
75	75	1.2	J-C / T3-3	J-2C / T3-3	J-3C / T3-3
100	50	1.2	J-C / T4-2	J-2C / T4-2	J-3C / T4-2
100	75	1.2	J-C / T4-3	J-2C / T4-3	J-3C / T4-3
100	100	1.2	J-C / T4-4	J-2C / T4-4	J-3C / T4-4
150	50	1.2	J-C / T6-2	J-2C / T6-2	J-3C / T6-2
150	75	1.2	J-C / T6-3	J-2C / T6-3	J-3C / T6-3
150	100	1.2	J-C / T6-4	J-2C / T6-4	J-3C / T6-4
150	150	1.5	J-C / T6-6	J-2C / T6-6	J-3C / T6-6
225	50	1.5	J-C / T9-2	J-2C / T9-2	J-3C / T9-2
225	75	1.5	J-C / T9-3	J-2C / T9-3	J-3C / T9-3
225	100	1.5	J-C / T9-4	J-2C / T9-4	J-3C / T9-4
225	150	1.5	J-C / T9-6	J-2C / T9-6	J-3C / T9-6
225	225	1.5	J-C / T9-9	J-2C / T9-9	J-3C / T9-9
300	50	1.5	J-C / T12-2	J-2C / T12-2	J-3C / T12-2
300	75	1.5	J-C / T12-3	J-2C / T12-3	J-3C / T12-3
300	100	1.5	J-C / T12-4	J-2C / T12-4	J-3C / T12-4
300	150	1.5	J-C / T12-6	J-2C / T12-6	J-3C / T12-6
300	225	1.5	J-C / T12-9	J-2C / T12-9	J-3C / T12-9
300	300	2.0	J-C / T12-12	J-2C / T12-12	J-3C / T12-12



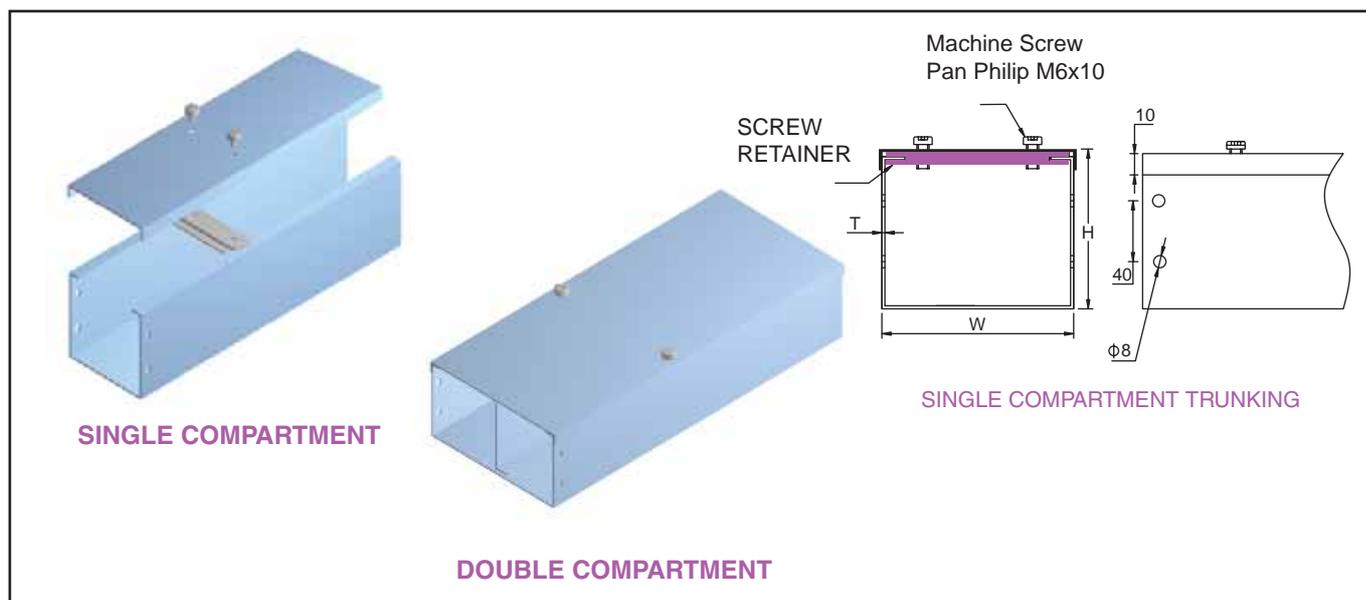
**Note:** PSI - Trunkings are manufactured in single and multi compartments also

# SURFACE CABLE TRUNKING

## STRAIGHT LENGTHS

### SCREW LOCK ARRANGEMENT

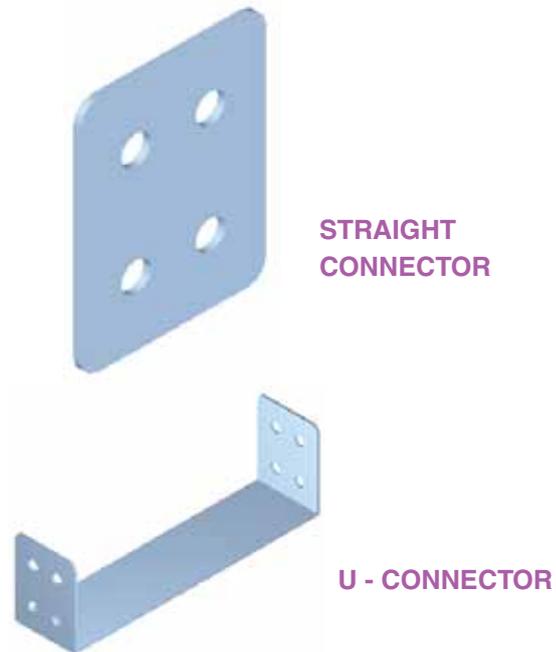
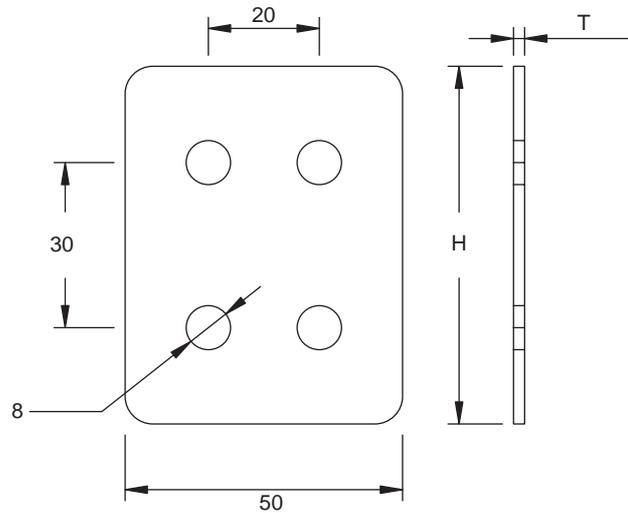
WIDTH mm	HEIGHT mm	THICKNESS mm	SINGLE COMPARTMENT	TWO COMPARTMENT	THREE COMPARTMENT
50	50	1.0	S-C / T2-2	S-2C / T2-2	S-3C / T2-2
75	50	1.2	S-C / T3-2	S-2C / T3-2	S-3C / T3-2
75	75	1.2	S-C / T3-3	S-2C / T3-3	S-3C / T3-3
100	50	1.2	S-C / T4-2	S-2C / T4-2	S-3C / T4-2
100	75	1.2	S-C / T4-3	S-2C / T4-3	S-3C / T4-3
100	100	1.2	S-C / T4-4	S-2C / T4-4	S-3C / T4-4
150	50	1.2	S-C / T6-2	S-2C / T6-2	S-3C / T6-2
150	75	1.2	S-C / T6-3	S-2C / T6-3	S-3C / T6-3
150	100	1.2	S-C / T6-4	S-2C / T6-4	S-3C / T6-4
150	150	1.5	S-C / T6-6	S-2C / T6-6	S-3C / T6-6
225	50	1.5	S-C / T9-2	S-2C / T9-2	S-3C / T9-2
225	75	1.5	S-C / T9-3	S-2C / T9-3	S-3C / T9-3
225	100	1.5	S-C / T9-4	S-2C / T9-4	S-3C / T9-4
225	150	1.5	S-C / T9-6	S-2C / T9-6	S-3C / T9-6
225	225	1.5	S-C / T9-9	S-2C / T9-9	S-3C / T9-9
300	50	1.5	S-C / T12-2	S-2C / T12-2	S-3C / T12-2
300	75	1.5	S-C / T12-3	S-2C / T12-3	S-3C / T12-3
300	100	1.5	S-C / T12-4	S-2C / T12-4	S-3C / T12-4
300	150	1.5	S-C / T12-6	S-2C / T12-6	S-3C / T12-6
300	225	1.5	S-C / T12-9	S-2C / T12-9	S-3C / T12-9
300	300	2.0	S-C / T12-12	S-2C / T12-12	S-3C / T12-12



**Note:** PSI - Trunkings are manufactured in single and multi compartments also

## STRAIGHT CONNECTOR

SIZE mm	THICKNESS mm	CONNECTOR
50 X 50	1.0	CST2-2
75 X 50	1.2	CST3-2
75 X 75	1.2	CST3-3
100 X 50	1.2	CST4-2
100 X 75	1.2	CST4-3
100 X 100	1.2	CST4-4
150 X 50	1.2	CST6-2
150 X 75	1.2	CST6-3
150 X 100	1.2	CST6-4
150 X 150	1.5	CST6-6
225 X 50	1.5	CST9-2
225 X 75	1.5	CST9-3
225 X 100	1.5	CST9-4
225 X 150	1.5	CST9-6
225 X 225	1.5	CST9-9
300 X 50	1.5	CST12-2
300 X 75	1.5	CST12-3
300 X 100	1.5	CST12-4
300 X 150	1.5	CST12-6
300 X 225	1.5	CST12-9
300 X 300	2.0	CST12-12



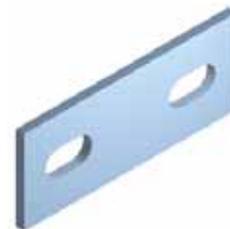
## STRAIGHT CONNECTOR

Connectors are supplied with trunking with a set of pan Philip M6 X 10 machine screw, nut and washer.

U-Type connectors are optional and to be ordered separately.

## BONDING JUMPER / EARTH STRIP

PART REF
BJ / TRK



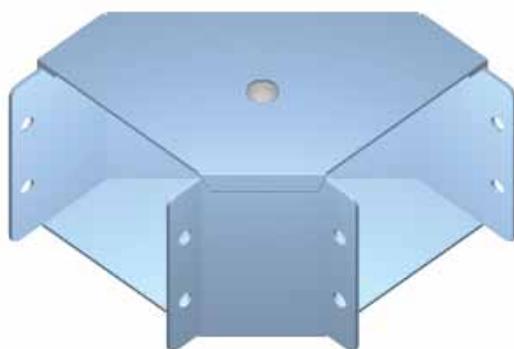
**Note:** To order U- connector, use 'U' as prefix to 'CST' in the table.  
 Bonding jumpers for the trunking are supplied in a pack of 25 numbers.  
 Bonding jumpers are required to be ordered separately.

## SURFACE CABLE TRUNKING

### BEND TOP COVER - 90°

#### JET LOCK ARRANGEMENT

WIDTH mm	HEIGHT mm	THICKNESS mm	SINGLE COMPARTMENT	TWO COMPARTMENT	THREE COMPARTMENT
50	50	1.0	J-BTC9/2-2	J-2BTC9/2-2	J-3BTC9/2-2
75	50	1.2	J-BTC9/3-2	J-2BTC9/3-2	J-3BTC9/3-2
75	75	1.2	J-BTC9/3-3	J-2BTC9/3-3	J-3BTC9/3-3
100	50	1.2	J-BTC9/4-2	J-2BTC9/4-2	J-3BTC9/4-2
100	75	1.2	J-BTC9/4-3	J-2BTC9/4-3	J-3BTC9/4-3
100	100	1.2	J-BTC9/4-4	J-2BTC9/4-4	J-3BTC9/4-4
150	50	1.2	J-BTC9/6-2	J-2BTC9/6-2	J-3BTC9/6-2
150	75	1.2	J-BTC9/6-3	J-2BTC9/6-3	J-3BTC9/6-3
150	100	1.2	J-BTC9/6-4	J-2BTC9/6-4	J-3BTC9/6-4
150	150	1.5	J-BTC9/6-6	J-2BTC9/6-6	J-3BTC9/6-6
225	50	1.5	J-BTC9/9-2	J-2BTC9/9-2	J-3BTC9/9-2
225	75	1.5	J-BTC9/9-3	J-2BTC9/9-3	J-3BTC9/9-3
225	100	1.5	J-BTC9/9-4	J-2BTC9/9-4	J-3BTC9/9-4
225	150	1.5	J-BTC9/9-6	J-2BTC9/9-6	J-3BTC9/9-6
225	225	1.5	J-BTC9/9-9	J-2BTC9/9-9	J-3BTC9/9-9
300	50	1.5	J-BTC9/12-2	J-2BTC9/12-2	J-3BTC9/12-2
300	75	1.5	J-BTC9/12-3	J-2BTC9/12-3	J-3BTC9/12-3
300	100	1.5	J-BTC9/12-4	J-2BTC9/12-4	J-3BTC9/12-4
300	150	1.5	J-BTC9/12-6	J-2BTC9/12-6	J-3BTC9/12-6
300	225	1.5	J-BTC9/12-9	J-2BTC9/12-9	J-3BTC9/12-9
300	300	2.0	J-BTC9/12-12	J-2BTC9/12-12	J-3BTC9/12-12



**BEND TOP COVER 90°  
SINGLE COMPARTMENT**



**BEND TOP COVER 90°  
DOUBLE COMPARTMENT**

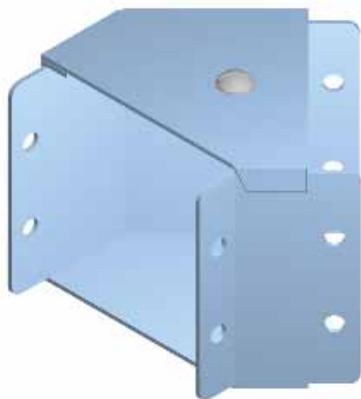
**Note:** To order screw lock bend top cover 90°, use 'S' as prefix in place of 'J' in the table.

## SURFACE CABLE TRUNKING

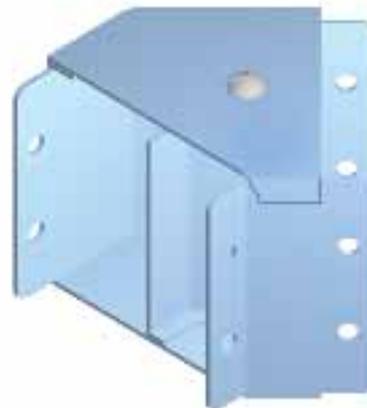
### BEND TOP COVER - 45°

#### JET LOCK ARRANGEMENT

WIDTH mm	HEIGHT mm	THICKNESS mm	SINGLE COMPARTMENT	TWO COMPARTMENT	THREE COMPARTMENT
50	50	1.0	J-BTC4/2-2	J-2BTC4/2-2	J-3BTC4/2-2
75	50	1.2	J-BTC4/3-2	J-2BTC4/3-2	J-3BTC4/3-2
75	75	1.2	J-BTC4/3-3	J-2BTC4/3-3	J-3BTC4/3-3
100	50	1.2	J-BTC4/4-2	J-2BTC4/4-2	J-3BTC4/4-2
100	75	1.2	J-BTC4/4-3	J-2BTC4/4-3	J-3BTC4/4-3
100	100	1.2	J-BTC4/4-4	J-2BTC4/4-4	J-3BTC4/4-4
150	50	1.2	J-BTC4/6-2	J-2BTC4/6-2	J-3BTC4/6-2
150	75	1.2	J-BTC4/6-3	J-2BTC4/6-3	J-3BTC4/6-3
150	100	1.2	J-BTC4/6-4	J-2BTC4/6-4	J-3BTC4/6-4
150	150	1.5	J-BTC4/6-6	J-2BTC4/6-6	J-3BTC4/6-6
225	50	1.5	J-BTC4/9-2	J-2BTC4/9-2	J-3BTC4/9-2
225	75	1.5	J-BTC4/9-3	J-2BTC4/9-3	J-3BTC4/9-3
225	100	1.5	J-BTC4/9-4	J-2BTC4/9-4	J-3BTC4/9-4
225	150	1.5	J-BTC4/9-6	J-2BTC4/9-6	J-3BTC4/9-6
225	225	1.5	J-BTC4/9-9	J-2BTC4/9-9	J-3BTC4/9-9
300	50	1.5	J-BTC4/12-2	J-2BTC4/12-2	J-3BTC4/12-2
300	75	1.5	J-BTC4/12-3	J-2BTC4/12-3	J-3BTC4/12-3
300	100	1.5	J-BTC4/12-4	J-2BTC4/12-4	J-3BTC4/12-4
300	150	1.5	J-BTC4/12-6	J-2BTC4/12-6	J-3BTC4/12-6
300	225	1.5	J-BTC4/12-9	J-2BTC4/12-9	J-3BTC4/12-9
300	300	2.0	J-BTC4/12-12	J-2BTC4/12-12	J-3BTC4/12-12



BEND TOP COVER 45°  
SINGLE COMPARTMENT



BEND TOP COVER 45°  
DOUBLE COMPARTMENT

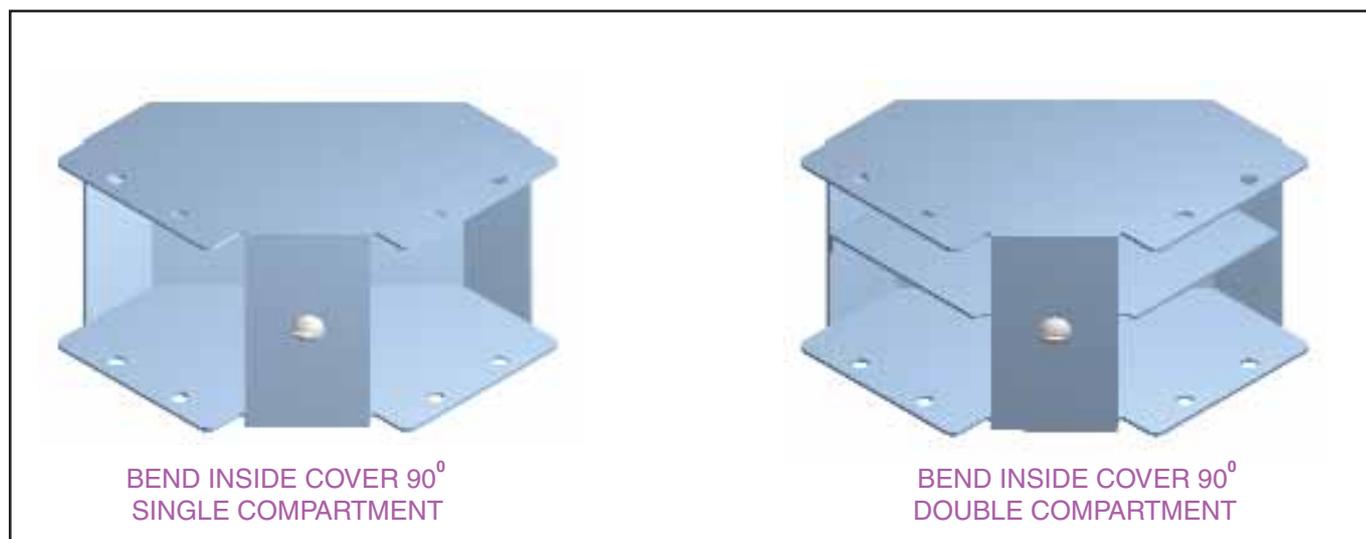
**Note:** To order screw lock bend top cover 45°, use 'S' as prefix in place of 'J' in the table.

## SURFACE CABLE TRUNKING

### BEND INSIDE COVER - 90°

#### JET LOCK ARRANGEMENT

WIDTH mm	HEIGHT mm	THICKNESS mm	SINGLE COMPARTMENT	TWO COMPARTMENT	THREE COMPARTMENT
50	50	1.0	J-BIC9/2-2	J-2BIC9/2-2	J-3BIC9/2-2
75	50	1.2	J-BIC9/3-2	J-2BIC9/3-2	J-3BIC9/3-2
75	75	1.2	J-BIC9/3-3	J-2BIC9/3-3	J-3BIC9/3-3
100	50	1.2	J-BIC9/4-2	J-2BIC9/4-2	J-3BIC9/4-2
100	75	1.2	J-BIC9/4-3	J-2BIC9/4-3	J-3BIC9/4-3
100	100	1.2	J-BIC9/4-4	J-2BIC9/4-4	J-3BIC9/4-4
150	50	1.2	J-BIC9/6-2	J-2BIC9/6-2	J-3BIC9/6-2
150	75	1.2	J-BIC9/6-3	J-2BIC9/6-3	J-3BIC9/6-3
150	100	1.2	J-BIC9/6-4	J-2BIC9/6-4	J-3BIC9/6-4
150	150	1.5	J-BIC9/6-6	J-2BIC9/6-6	J-3BIC9/6-6
225	50	1.5	J-BIC9/9-2	J-2BIC9/9-2	J-3BIC9/9-2
225	75	1.5	J-BIC9/9-3	J-2BIC9/9-3	J-3BIC9/9-3
225	100	1.5	J-BIC9/9-4	J-2BIC9/9-4	J-3BIC9/9-4
225	150	1.5	J-BIC9/9-6	J-2BIC9/9-6	J-3BIC9/9-6
225	225	1.5	J-BIC9/9-9	J-2BIC9/9-9	J-3BIC9/9-9
300	50	1.5	J-BIC9/12-2	J-2BIC9/12-2	J-3BIC9/12-2
300	75	1.5	J-BIC9/12-3	J-2BIC9/12-3	J-3BIC9/12-3
300	100	1.5	J-BIC9/12-4	J-2BIC9/12-4	J-3BIC9/12-4
300	150	1.5	J-BIC9/12-6	J-2BIC9/12-6	J-3BIC9/12-6
300	225	1.5	J-BIC9/12-9	J-2BIC9/12-9	J-3BIC9/12-9
300	300	2.0	J-BIC9/12-12	J-2BIC9/12-12	J-3BIC9/12-12



**Note:** To order screw lock bend inside cover 90°, use 'S' as prefix in place of 'J' in the table.

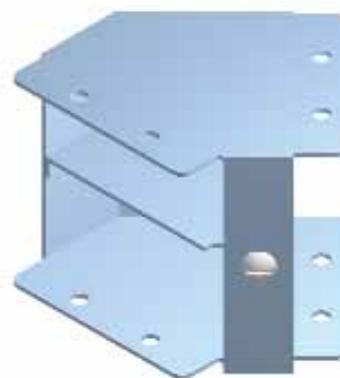
## BEND INSIDE COVER - 45°

### JET LOCK ARRANGEMENT

WIDTH mm	HEIGHT mm	THICKNESS mm	SINGLE COMPARTMENT	TWO COMPARTMENT	THREE COMPARTMENT
50	50	1.0	J-BIC4/2-2	J-2BIC4/2-2	J-3BIC4/2-2
75	50	1.2	J-BIC4/3-2	J-2BIC4/3-2	J-3BIC4/3-2
75	75	1.2	J-BIC4/3-3	J-2BIC4/3-3	J-3BIC4/3-3
100	50	1.2	J-BIC4/4-2	J-2BIC4/4-2	J-3BIC4/4-2
100	75	1.2	J-BIC4/4-3	J-2BIC4/4-3	J-3BIC4/4-3
100	100	1.2	J-BIC4/4-4	J-2BIC4/4-4	J-3BIC4/4-4
150	50	1.2	J-BIC4/6-2	J-2BIC4/6-2	J-3BIC4/6-2
150	75	1.2	J-BIC4/6-3	J-2BIC4/6-3	J-3BIC4/6-3
150	100	1.2	J-BIC4/6-4	J-2BIC4/6-4	J-3BIC4/6-4
150	150	1.5	J-BIC4/6-6	J-2BIC4/6-6	J-3BIC4/6-6
225	50	1.5	J-BIC4/9-2	J-2BIC4/9-2	J-3BIC4/9-2
225	75	1.5	J-BIC4/9-3	J-2BIC4/9-3	J-3BIC4/9-3
225	100	1.5	J-BIC4/9-4	J-2BIC4/9-4	J-3BIC4/9-4
225	150	1.5	J-BIC4/9-6	J-2BIC4/9-6	J-3BIC4/9-6
225	225	1.5	J-BIC4/9-9	J-2BIC4/9-9	J-3BIC4/9-9
300	50	1.5	J-BIC4/12-2	J-2BIC4/12-2	J-3BIC4/12-2
300	75	1.5	J-BIC4/12-3	J-2BIC4/12-3	J-3BIC4/12-3
300	100	1.5	J-BIC4/12-4	J-2BIC4/12-4	J-3BIC4/12-4
300	150	1.5	J-BIC4/12-6	J-2BIC4/12-6	J-3BIC4/12-6
300	225	1.5	J-BIC4/12-9	J-2BIC4/12-9	J-3BIC4/12-9
300	300	2.0	J-BIC4/12-12	J-2BIC4/12-12	J-3BIC4/12-12



**BEND INSIDE COVER 45°  
SINGLE COMPARTMENT**



**BEND INSIDE COVER 45°  
DOUBLE COMPARTMENT**

**Note:** To order screw lock bend inside cover 45°, use 'S' as prefix in place of 'J' in the table.

## SURFACE CABLE TRUNKING

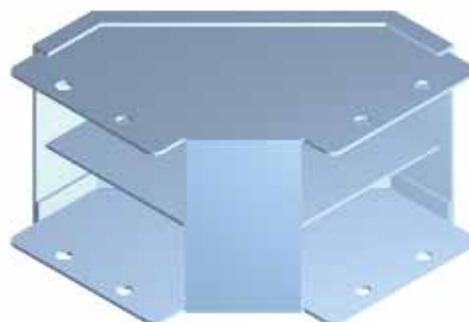
### BEND OUTSIDE COVER - 90°

#### JET LOCK ARRANGEMENT

WIDTH mm	HEIGHT mm	THICKNESS mm	SINGLE COMPARTMENT	TWO COMPARTMENT	THREE COMPARTMENT
50	50	1.0	J-BOC9/2-2	J-2BOC9/2-2	J-3BOC9/2-2
75	50	1.2	J-BOC9/3-2	J-2BOC9/3-2	J-3BOC9/3-2
75	75	1.2	J-BOC9/3-3	J-2BOC9/3-3	J-3BOC9/3-3
100	50	1.2	J-BOC9/4-2	J-2BOC9/4-2	J-3BOC9/4-2
100	75	1.2	J-BOC9/4-3	J-2BOC9/4-3	J-3BOC9/4-3
100	100	1.2	J-BOC9/4-4	J-2BOC9/4-4	J-3BOC9/4-4
150	50	1.2	J-BOC9/6-2	J-2BOC9/6-2	J-3BOC9/6-2
150	75	1.2	J-BOC9/6-3	J-2BOC9/6-3	J-3BOC9/6-3
150	100	1.2	J-BOC9/6-4	J-2BOC9/6-4	J-3BOC9/6-4
150	150	1.5	J-BOC9/6-6	J-2BOC9/6-6	J-3BOC9/6-6
225	50	1.5	J-BOC9/9-2	J-2BOC9/9-2	J-3BOC9/9-2
225	75	1.5	J-BOC9/9-3	J-2BOC9/9-3	J-3BOC9/9-3
225	100	1.5	J-BOC9/9-4	J-2BOC9/9-4	J-3BOC9/9-4
225	150	1.5	J-BOC9/9-6	J-2BOC9/9-6	J-3BOC9/9-6
225	225	1.5	J-BOC9/9-9	J-2BOC9/9-9	J-3BOC9/9-9
300	50	1.5	J-BOC9/12-2	J-2BOC9/12-2	J-3BOC9/12-2
300	75	1.5	J-BOC9/12-3	J-2BOC9/12-3	J-3BOC9/12-3
300	100	1.5	J-BOC9/12-4	J-2BOC9/12-4	J-3BOC9/12-4
300	150	1.5	J-BOC9/12-6	J-2BOC9/12-6	J-3BOC9/12-6
300	225	1.5	J-BOC9/12-9	J-2BOC9/12-9	J-3BOC9/12-9
300	300	2.0	J-BOC9/12-12	J-2BOC9/12-12	J-3BOC9/12-12



**BEND OUTSIDE COVER 90°  
SINGLE COMPARTMENT**



**BEND OUTSIDE COVER 90°  
DOUBLE COMPARTMENT**

**Note:** To order screw lock bend outside cover 90°, use 'S' as prefix in place of 'J' in the table.

## SURFACE CABLE TRUNKING

### BEND OUTSIDE COVER - 45°

#### JET LOCK ARRANGEMENT

WIDTH mm	HEIGHT mm	THICKNESS mm	SINGLE COMPARTMENT	TWO COMPARTMENT	THREE COMPARTMENT
50	50	1.0	J-BOC4/2-2	J-2BOC4/2-2	J-3BOC4/2-2
75	50	1.2	J-BOC4/3-2	J-2BOC4/3-2	J-3BOC4/3-2
75	75	1.2	J-BOC4/3-3	J-2BOC4/3-3	J-3BOC4/3-3
100	50	1.2	J-BOC4/4-2	J-2BOC4/4-2	J-3BOC4/4-2
100	75	1.2	J-BOC4/4-3	J-2BOC4/4-3	J-3BOC4/4-3
100	100	1.2	J-BOC4/4-4	J-2BOC4/4-4	J-3BOC4/4-4
150	50	1.2	J-BOC4/6-2	J-2BOC4/6-2	J-3BOC4/6-2
150	75	1.2	J-BOC4/6-3	J-2BOC4/6-3	J-3BOC4/6-3
150	100	1.2	J-BOC4/6-4	J-2BOC4/6-4	J-3BOC4/6-4
150	150	1.5	J-BOC4/6-6	J-2BOC4/6-6	J-3BOC4/6-6
225	50	1.5	J-BOC4/9-2	J-2BOC4/9-2	J-3BOC4/9-2
225	75	1.5	J-BOC4/9-3	J-2BOC4/9-3	J-3BOC4/9-3
225	100	1.5	J-BOC4/9-4	J-2BOC4/9-4	J-3BOC4/9-4
225	150	1.5	J-BOC4/9-6	J-2BOC4/9-6	J-3BOC4/9-6
225	225	1.5	J-BOC4/9-9	J-2BOC4/9-9	J-3BOC4/9-9
300	50	1.5	J-BOC4/12-2	J-2BOC4/12-2	J-3BOC4/12-2
300	75	1.5	J-BOC4/12-3	J-2BOC4/12-3	J-3BOC4/12-3
300	100	1.5	J-BOC4/12-4	J-2BOC4/12-4	J-3BOC4/12-4
300	150	1.5	J-BOC4/12-6	J-2BOC4/12-6	J-3BOC4/12-6
300	225	1.5	J-BOC4/12-9	J-2BOC4/12-9	J-3BOC4/12-9
300	300	2.0	J-BOC4/12-12	J-2BOC4/12-12	J-3BOC4/12-12



**BEND OUTSIDE COVER 45°  
SINGLE COMPARTMENT**



**BEND OUTSIDE COVER 45°  
DOUBLE COMPARTMENT**

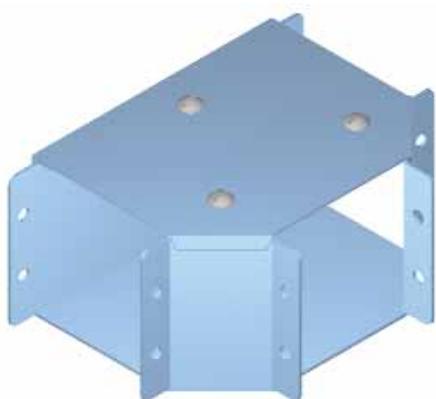
**Note:** To order screw lock bend outside cover 45°, use 'S' as prefix in place of 'J' in the table.

## SURFACE CABLE TRUNKING

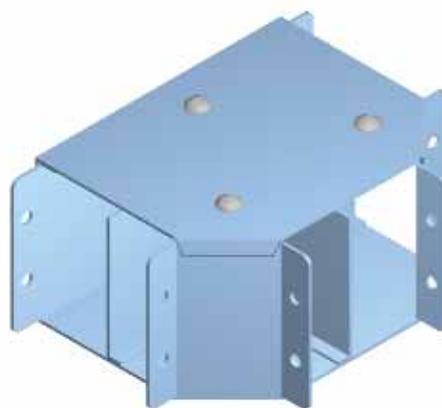
### TEE TOP COVER

#### JET LOCK ARRANGEMENT

WIDTH mm	HEIGHT mm	THICKNESS mm	SINGLE COMPARTMENT	TWO COMPARTMENT	THREE COMPARTMENT
50	50	1.0	J-TTC/2-2	J-2TTC/2-2	J-3TTC/2-2
75	50	1.2	J-TTC/3-2	J-2TTC/3-2	J-3TTC/3-2
75	75	1.2	J-TTC/3-3	J-2TTC/3-3	J-3TTC/3-3
100	50	1.2	J-TTC/4-2	J-2TTC/4-2	J-3TTC/4-2
100	75	1.2	J-TTC/4-3	J-2TTC/4-3	J-3TTC/4-3
100	100	1.2	J-TTC/4-4	J-2TTC/4-4	J-3TTC/4-4
150	50	1.2	J-TTC/6-2	J-2TTC/6-2	J-3TTC/6-2
150	75	1.2	J-TTC/6-3	J-2TTC/6-3	J-3TTC/6-3
150	100	1.2	J-TTC/6-4	J-2TTC/6-4	J-3TTC/6-4
150	150	1.5	J-TTC/6-6	J-2TTC/6-6	J-3TTC/6-6
225	50	1.5	J-TTC/9-2	J-2TTC/9-2	J-3TTC/9-2
225	75	1.5	J-TTC/9-3	J-2TTC/9-3	J-3TTC/9-3
225	100	1.5	J-TTC/9-4	J-2TTC/9-4	J-3TTC/9-4
225	150	1.5	J-TTC/9-6	J-2TTC/9-6	J-3TTC/9-6
225	225	1.5	J-TTC/9-9	J-2TTC/9-9	J-3TTC/9-9
300	50	1.5	J-TTC/12-2	J-2TTC/12-2	J-3TTC/12-2
300	75	1.5	J-TTC/12-3	J-2TTC/12-3	J-3TTC/12-3
300	100	1.5	J-TTC/12-4	J-2TTC/12-4	J-3TTC/12-4
300	150	1.5	J-TTC/12-6	J-2TTC/12-6	J-3TTC/12-6
300	225	1.5	J-TTC/12-9	J-2TTC/12-9	J-3TTC/12-9
300	300	2.0	J-TTC/12-12	J-2TTC/12-12	J-3TTC/12-12



**TEE TOP COVER  
SINGLE COMPARTMENT**



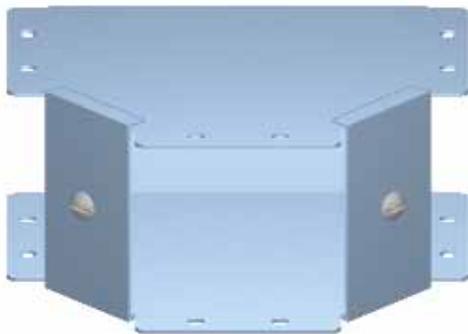
**TEE TOP COVER  
DOUBLE COMPARTMENT**

**Note:** To order screw lock tee top cover, use 'S' as prefix in place of 'J' in the table.

## TEE INSIDE COVER

### JET LOCK ARRANGEMENT

WIDTH mm	HEIGHT mm	THICKNESS mm	SINGLE COMPARTMENT	TWO COMPARTMENT	THREE COMPARTMENT
50	50	1.0	J-TIC/2-2	J-2TIC/2-2	J-3TIC/2-2
75	50	1.2	J-TIC/3-2	J-2TIC/3-2	J-3TIC/3-2
75	75	1.2	J-TIC/3-3	J-2TIC/3-3	J-3TIC/3-3
100	50	1.2	J-TIC/4-2	J-2TIC/4-2	J-3TIC/4-2
100	75	1.2	J-TIC/4-3	J-2TIC/4-3	J-3TIC/4-3
100	100	1.2	J-TIC/4-4	J-2TIC/4-4	J-3TIC/4-4
150	50	1.2	J-TIC/6-2	J-2TIC/6-2	J-3TIC/6-2
150	75	1.2	J-TIC/6-3	J-2TIC/6-3	J-3TIC/6-3
150	100	1.2	J-TIC/6-4	J-2TIC/6-4	J-3TIC/6-4
150	150	1.5	J-TIC/6-6	J-2TIC/6-6	J-3TIC/6-6
225	50	1.5	J-TIC/9-2	J-2TIC/9-2	J-3TIC/9-2
225	75	1.5	J-TIC/9-3	J-2TIC/9-3	J-3TIC/9-3
225	100	1.5	J-TIC/9-4	J-2TIC/9-4	J-3TIC/9-4
225	150	1.5	J-TIC/9-6	J-2TIC/9-6	J-3TIC/9-6
225	225	1.5	J-TIC/9-9	J-2TIC/9-9	J-3TIC/9-9
300	50	1.5	J-TIC/12-2	J-2TIC/12-2	J-3TIC/12-2
300	75	1.5	J-TIC/12-3	J-2TIC/12-3	J-3TIC/12-3
300	100	1.5	J-TIC/12-4	J-2TIC/12-4	J-3TIC/12-4
300	150	1.5	J-TIC/12-6	J-2TIC/12-6	J-3TIC/12-6
300	225	1.5	J-TIC/12-9	J-2TIC/12-9	J-3TIC/12-9
300	300	2.0	J-TIC/12-12	J-2TIC/12-12	J-3TIC/12-12



TEE INSIDE COVER  
SINGLE COMPARTMENT



TEE INSIDE COVER  
DOUBLE COMPARTMENT

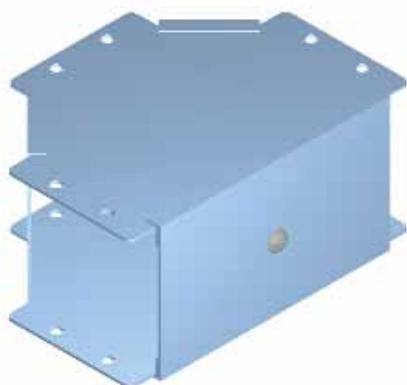
**Note:** To order screw lock Tee Inside cover, use 'S' as prefix in place of 'J' in the table.

## SURFACE CABLE TRUNKING

### TEE OUTSIDE COVER

#### JET LOCK ARRANGEMENT

WIDTH mm	HEIGHT mm	THICKNESS mm	SINGLE COMPARTMENT	TWO COMPARTMENT	THREE COMPARTMENT
50	50	1.0	J-TOC/2-2	J-2TOC/2-2	J-3TOC/2-2
75	50	1.2	J-TOC/3-2	J-2TOC/3-2	J-3TOC/3-2
75	75	1.2	J-TOC/3-3	J-2TOC/3-3	J-3TOC/3-3
100	50	1.2	J-TOC/4-2	J-2TOC/4-2	J-3TOC/4-2
100	75	1.2	J-TOC/4-3	J-2TOC/4-3	J-3TOC/4-3
100	100	1.2	J-TOC/4-4	J-2TOC/4-4	J-3TOC/4-4
150	50	1.2	J-TOC/6-2	J-2TOC/6-2	J-3TOC/6-2
150	75	1.2	J-TOC/6-3	J-2TOC/6-3	J-3TOC/6-3
150	100	1.2	J-TOC/6-4	J-2TOC/6-4	J-3TOC/6-4
150	150	1.5	J-TOC/6-6	J-2TOC/6-6	J-3TOC/6-6
225	50	1.5	J-TOC/9-2	J-2TOC/9-2	J-3TOC/9-2
225	75	1.5	J-TOC/9-3	J-2TOC/9-3	J-3TOC/9-3
225	100	1.5	J-TOC/9-4	J-2TOC/9-4	J-3TOC/9-4
225	150	1.5	J-TOC/9-6	J-2TOC/9-6	J-3TOC/9-6
225	225	1.5	J-TOC/9-9	J-2TOC/9-9	J-3TOC/9-9
300	50	1.5	J-TOC/12-2	J-2TOC/12-2	J-3TOC/12-2
300	75	1.5	J-TOC/12-3	J-2TOC/12-3	J-3TOC/12-3
300	100	1.5	J-TOC/12-4	J-2TOC/12-4	J-3TOC/12-4
300	150	1.5	J-TOC/12-6	J-2TOC/12-6	J-3TOC/12-6
300	225	1.5	J-TOC/12-9	J-2TOC/12-9	J-3TOC/12-9
300	300	2.0	J-TOC/12-12	J-2TOC/12-12	J-3TOC/12-12



TEE OUTSIDE COVER  
SINGLE COMPARTMENT



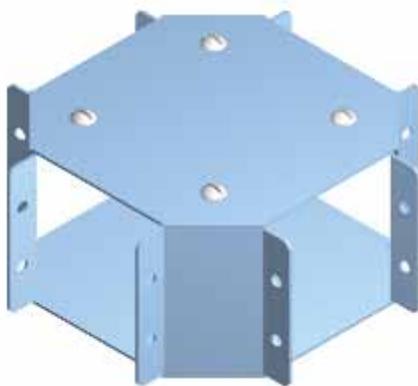
TEE OUTSIDE COVER  
DOUBLE COMPARTMENT

**Note:** To order screw lock Tob Outside cover, use 'S' as prefix in place of 'J' in the table.

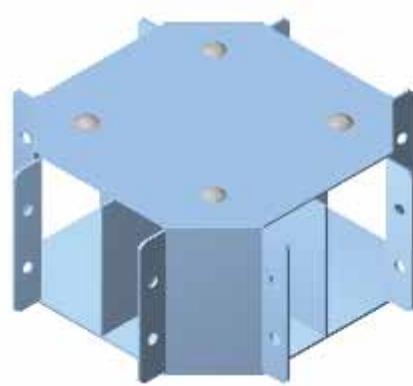
## CROSS TOP COVER

### JET LOCK ARRANGEMENT

WIDTH mm	HEIGHT mm	THICKNESS mm	SINGLE COMPARTMENT	TWO COMPARTMENT	THREE COMPARTMENT
50	50	1.0	J-CTC/2-2	J-2CTC/2-2	J-3CTC/2-2
75	50	1.2	J-CTC/3-2	J-2CTC/3-2	J-3CTC/3-2
75	75	1.2	J-CTC/3-3	J-2CTC/3-3	J-3CTC/3-3
100	50	1.2	J-CTC/4-2	J-2CTC/4-2	J-3CTC/4-2
100	75	1.2	J-CTC/4-3	J-2CTC/4-3	J-3CTC/4-3
100	100	1.2	J-CTC/4-4	J-2CTC/4-4	J-3CTC/4-4
150	50	1.2	J-CTC/6-2	J-2CTC/6-2	J-3CTC/6-2
150	75	1.2	J-CTC/6-3	J-2CTC/6-3	J-3CTC/6-3
150	100	1.2	J-CTC/6-4	J-2CTC/6-4	J-3CTC/6-4
150	150	1.5	J-CTC/6-6	J-2CTC/6-6	J-3CTC/6-6
225	50	1.5	J-CTC/9-2	J-2CTC/9-2	J-3CTC/9-2
225	75	1.5	J-CTC/9-3	J-2CTC/9-3	J-3CTC/9-3
225	100	1.5	J-CTC/9-4	J-2CTC/9-4	J-3CTC/9-4
225	150	1.5	J-CTC/9-6	J-2CTC/9-6	J-3CTC/9-6
225	225	1.5	J-CTC/9-9	J-2CTC/9-9	J-3CTC/9-9
300	50	1.5	J-CTC/12-2	J-2CTC/12-2	J-3CTC/12-2
300	75	1.5	J-CTC/12-3	J-2CTC/12-3	J-3CTC/12-3
300	100	1.5	J-CTC/12-4	J-2CTC/12-4	J-3CTC/12-4
300	150	1.5	J-CTC/12-6	J-2CTC/12-6	J-3CTC/12-6
300	225	1.5	J-CTC/12-9	J-2CTC/12-9	J-3CTC/12-9
300	300	2.0	J-CTC/12-12	J-2CTC/12-12	J-3CTC/12-12



CROSS TOP COVER  
SINGLE COMPARTMENT



CROSS TOP COVER  
DOUBLE COMPARTMENT

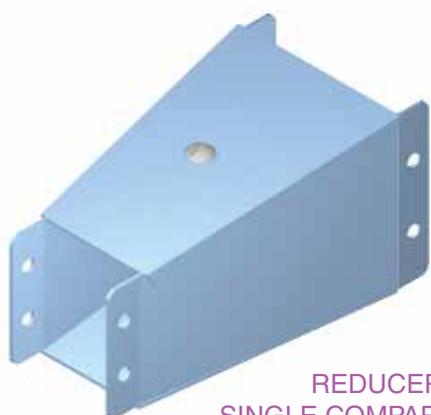
**Note:** To order screw lock cross top cover, use 'S' as prefix in place of 'J' in the table.

# SURFACE CABLE TRUNKING

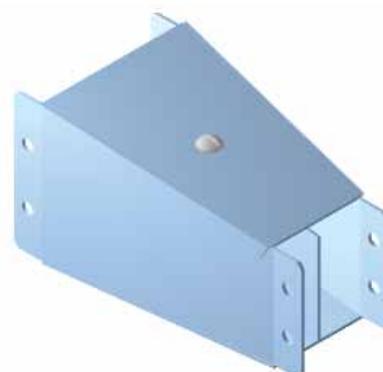
## REDUCER

### JET LOCK ARRANGEMENT

LARGER SIZE (W1) mm	REDUCING SIZE (W2) mm	THICKNESS mm	SINGLE COMPARTMENT	TWO COMPARTMENT	THREE COMPARTMENT
75 X 50	50 X 50	1.0	J-RS/W1-W2	J-2RS/W1-W2	J-3RS/W1-W2
75 X 75	50 X 50	1.2	J-RS/W1-W2	J-2RS/W1-W2	J-3RS/W1-W2
100 X 50	75 X 75	1.2	J-RS/W1-W2	J-2RS/W1-W2	J-3RS/W1-W2
100 X 75	100 X 50	1.2	J-RS/W1-W2	J-2RS/W1-W2	J-3RS/W1-W2
100 X 100	100 X 75	1.2	J-RS/W1-W2	J-2RS/W1-W2	J-3RS/W1-W2
150 X 50	100 X 100	1.2	J-RS/W1-W2	J-2RS/W1-W2	J-3RS/W1-W2
150 X 75	150 X 50	1.2	J-RS/W1-W2	J-2RS/W1-W2	J-3RS/W1-W2
150 X 100	150 X 75	1.2	J-RS/W1-W2	J-2RS/W1-W2	J-3RS/W1-W2
150 X 150	150 X 100	1.5	J-RS/W1-W2	J-2RS/W1-W2	J-3RS/W1-W2
225 X 50	150 X 150	1.5	J-RS/W1-W2	J-2RS/W1-W2	J-3RS/W1-W2
225 X 75	225 X 50	1.5	J-RS/W1-W2	J-2RS/W1-W2	J-3RS/W1-W2
225 X 100	225 X 75	1.5	J-RS/W1-W2	J-2RS/W1-W2	J-3RS/W1-W2
225 X 150	225 X 100	1.5	J-RS/W1-W2	J-2RS/W1-W2	J-3RS/W1-W2
225 X 225	225 X 150	1.5	J-RS/W1-W2	J-2RS/W1-W2	J-3RS/W1-W2
300 X 50	225 X 225	1.5	J-RS/W1-W2	J-2RS/W1-W2	J-3RS/W1-W2
300 X 75	300 X 50	1.5	J-RS/W1-W2	J-2RS/W1-W2	J-3RS/W1-W2
300 X 100	300 X 75	1.5	J-RS/W1-W2	J-2RS/W1-W2	J-3RS/W1-W2
300 X 150	300 X 100	1.5	J-RS/W1-W2	J-2RS/W1-W2	J-3RS/W1-W2
300 X 225	300 X 150	2.0	J-RS/W1-W2	J-2RS/W1-W2	J-3RS/W1-W2



REDUCER  
SINGLE COMPARTMENT



REDUCER  
DOUBLE COMPARTMENT

**Note:** To order screw lock reducer use 'S' as prefix in place of 'J' in the table.

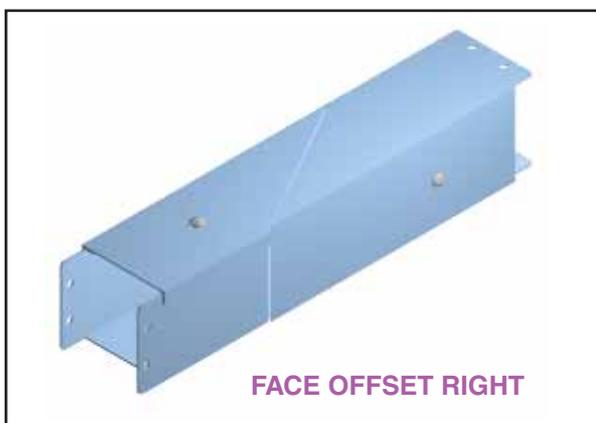
## SURFACE CABLE TRUNKING

### FACE OFFSET RIGHT

SIZE mm	THICKNESS mm	FACE OFFSET RIGHT
50 X 50	1.0	J-FOR/2-2
75 X 50	1.2	J-FOR/3-2
75 X 75	1.2	J-FOR/3-3
100 X 50	1.2	J-FOR/4-2
100 X 75	1.2	J-FOR/4-3
100 X 100	1.2	J-FOR/4-4
150 X 50	1.2	J-FOR/6-2
150 X 75	1.2	J-FOR/6-3
150 X 100	1.2	J-FOR/6-4
150 X 150	1.5	J-FOR/6-6
225 X 50	1.5	J-FOR/9-2
225 X 75	1.5	J-FOR/9-3
225 X 100	1.5	J-FOR/9-4
225 X 150	1.5	J-FOR/9-6
225 X 225	1.5	J-FOR/9-9
300 X 50	1.5	J-FOR/12-2
300 X 75	1.5	J-FOR/12-3
300 X 100	1.5	J-FOR/12-4
300 X 150	1.5	J-FOR/12-6
300 X 225	1.5	J-FOR/12-9
300 X 300	2.0	J-FOR/12-12

### FACE OFFSET LEFT

SIZE mm	THICKNESS mm	FACE OFFSET LEFT
50 X 50	1.0	J-FOL/2-2
75 X 50	1.2	J-FOL/3-2
75 X 75	1.2	J-FOL/3-3
100 X 50	1.2	J-FOL/4-2
100 X 75	1.2	J-FOL/4-3
100 X 100	1.2	J-FOL/4-4
150 X 50	1.2	J-FOL/6-2
150 X 75	1.2	J-FOL/6-3
150 X 100	1.2	J-FOL/6-4
150 X 150	1.5	J-FOL/6-6
225 X 50	1.5	J-FOL/9-2
225 X 75	1.5	J-FOL/9-3
225 X 100	1.5	J-FOL/9-4
225 X 150	1.5	J-FOL/9-6
225 X 225	1.5	J-FOL/9-9
300 X 50	1.5	J-FOL/12-2
300 X 75	1.5	J-FOL/12-3
300 X 100	1.5	J-FOL/12-4
300 X 150	1.5	J-FOL/12-6
300 X 225	1.5	J-FOL/12-9
300 X 300	2.0	J-FOL/12-12



**Note:** To order screw lock Face offset, use 'S' as prefix in place of 'J' in the table.

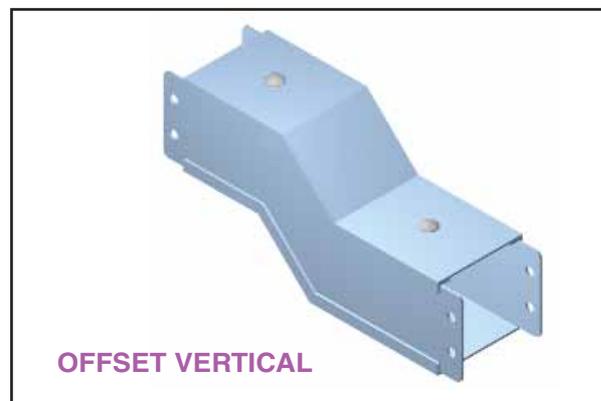
# SURFACE CABLE TRUNKING

## OFFSET HORIZONTAL

SIZE mm	THICKNESS mm	OFFSET HORIZONTAL
50 X 50	1.0	J-OH/2-2
75 X 50	1.2	J-OH/3-2
75 X 75	1.2	J-OH/3-3
100 X 50	1.2	J-OH/4-2
100 X 75	1.2	J-OH/4-3
100 X 100	1.2	J-OH/4-4
150 X 50	1.2	J-OH/6-2
150 X 75	1.2	J-OH/6-3
150 X 100	1.2	J-OH/6-4
150 X 150	1.5	J-OH/6-6
225 X 50	1.5	J-OH/9-2
225 X 75	1.5	J-OH/9-3
225 X 100	1.5	J-OH/9-4
225 X 150	1.5	J-OH/9-6
225 X 225	1.5	J-OH/9-9
300 X 50	1.5	J-OH/12-2
300 X 75	1.5	J-OH/12-3
300 X 100	1.5	J-OH/12-4
300 X 150	1.5	J-OH/12-6
300 X 225	1.5	J-OH/12-9
300 X 300	2.0	J-OH/12-12

## OFFSET VERTICAL

SIZE mm	THICKNESS mm	OFFSET VERTICAL
50 X 50	1.0	J-OV/2-2
75 X 50	1.2	J-OV/3-2
75 X 75	1.2	J-OV/3-3
100 X 50	1.2	J-OV/4-2
100 X 75	1.2	J-OV/4-3
100 X 100	1.2	J-OV/4-4
150 X 50	1.2	J-OV/6-2
150 X 75	1.2	J-OV/6-3
150 X 100	1.2	J-OV/6-4
150 X 150	1.5	J-OV/6-6
225 X 50	1.5	J-OV/9-2
225 X 75	1.5	J-OV/9-3
225 X 100	1.5	J-OV/9-4
225 X 150	1.5	J-OV/9-6
225 X 225	1.5	J-OV/9-9
300 X 50	1.5	J-OV/12-2
300 X 75	1.5	J-OV/12-3
300 X 100	1.5	J-OV/12-4
300 X 150	1.5	J-OV/12-6
300 X 225	1.5	J-OV/12-9
300 X 300	2.0	J-OV/12-12



**Note:**

To order screw lock offset use "S" as prefix in place of "J" in the tables.

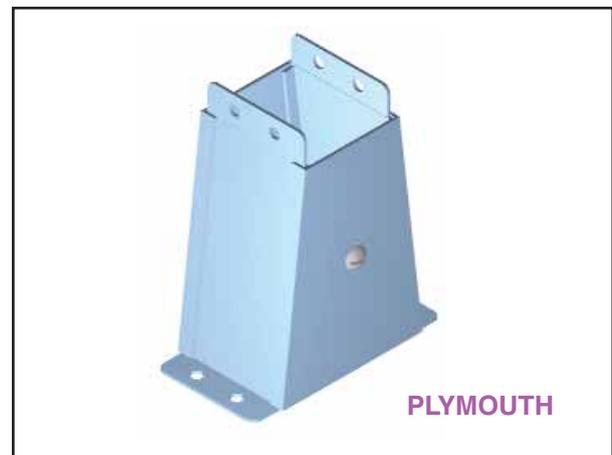
Offset vertical/horizontal can be produced in multichambers also. Use "2C" or "3C" as prefix before "OH" or "OV" while ordering double or triple compartments.

## HANGERS

SIZE mm	THICKNESS mm	HANGERS
50 X 50	1.2	HT2-2
75 X 50	1.2	HT3-2
75 X 75	1.2	HT3-3
100 X 50	1.2	HT4-2
100 X 75	1.2	HT4-3
100 X 100	1.2	HT4-4
150 X 50	1.2	HT6-2
150 X 75	1.2	HT6-3
150 X 100	1.2	HT6-4
150 X 150	1.5	HT6-6
225 X 50	1.5	HT9-2
225 X 75	1.5	HT9-3
225 X 100	1.5	HT9-4
225 X 150	1.5	HT9-6
225 X 225	1.5	HT9-9
300 X 50	1.5	HT12-2
300 X 75	1.5	HT12-3
300 X 100	1.5	HT12-4
300 X 150	1.5	HT12-6
300 X 225	1.5	HT12-9
300 X 300	2.0	HT12-12

## PLYMOUTH

SIZE mm	THICKNESS mm	PLYMOUTH
50 X 50	1.2	J-PM2-2
75 X 50	1.2	J-PM3-2
75 X 75	1.2	J-PM3-3
100 X 50	1.2	J-PM4-2
100 X 75	1.2	J-PM4-3
100 X 100	1.2	J-PM4-4
150 X 50	1.2	J-PM6-2
150 X 75	1.2	J-PM6-3
150 X 100	1.2	J-PM6-4
150 X 150	1.5	J-PM6-6
225 X 50	1.5	J-PM9-2
225 X 75	1.5	J-PM9-3
225 X 100	1.5	J-PM9-4
225 X 150	1.5	J-PM9-6
225 X 225	1.5	J-PM9-9
300 X 50	1.5	J-PM12-2
300 X 75	1.5	J-PM12-3
300 X 100	1.5	J-PM12-4
300 X 150	1.5	J-PM12-6
300 X 225	1.5	J-PM12-9
300 X 300	2.0	J-PM12-12

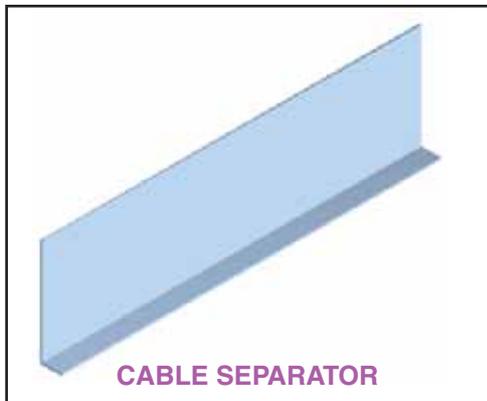


**Note:** To order srew lock plymouth, use 'S' as prefix in place of 'J' in the table.

# SURFACE CABLE TRUNKING

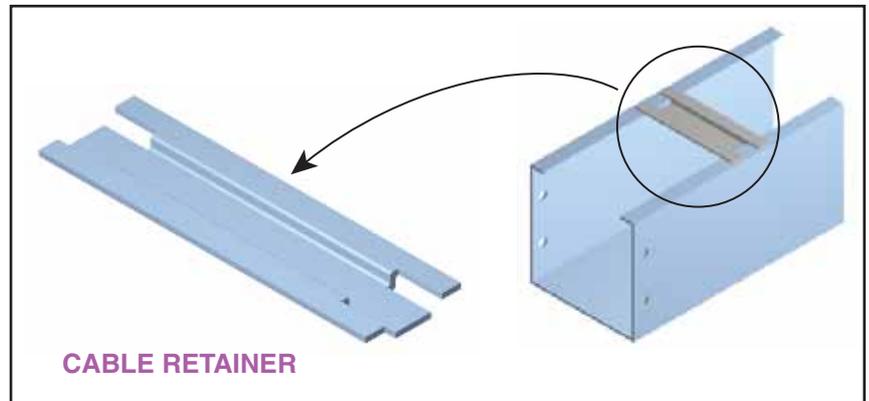
## CABLE SEPARATOR

REFERENCE	HEIGHT mm
CS-2	50
CS-3	75
CS-4	100
CS-6	150
CS-8	200
CS-9	225
CS-12	300



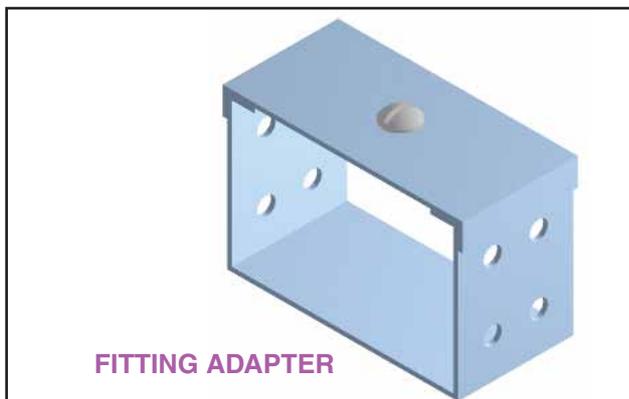
## CABLE RETAINER

REFERENCE	HEIGHT mm
CR-2	50
CR-3	75
CR-4	100
CR-6	150
CR-8	200
CR-9	225
CR-12	300



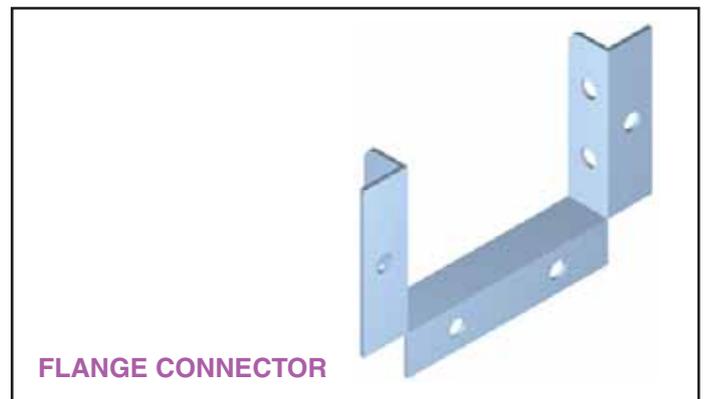
## FITTING ADAPTER

PART REF
J-FA/ - -



## FLANGE CONNECTOR

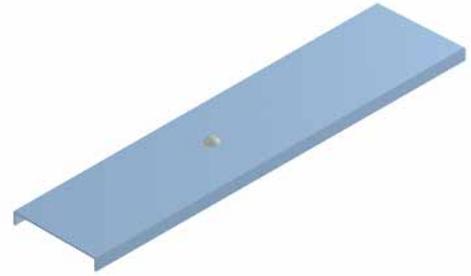
PART REF
FCT/ - -



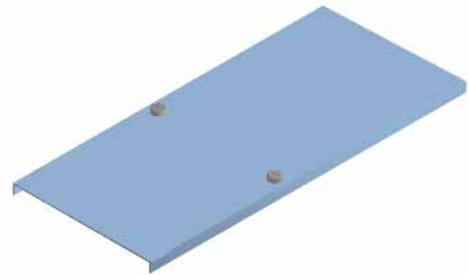
- Fitting adapters can be ordered by specifying the trunking size in mm or inches in the reference table.
- Screw lock Fitting adapters can be ordered by using 'S' as prefix in place of 'J' in the reference table  
**EXAMPLE:** For 50 x 50 trunking Specify FA / 50-50 or FA / 2-2
- Flange connectors can be ordered by specifying the trunking size in mm or inches in the reference table.  
**EXAMPLE:** For 50 x 50 trunking Specify FCT / 50-50 or FCT / 2-2

## SPARE TRUNKING COVERS

WIDTH mm	THICKNESS mm	JET LOCK COVERS	SCREW FIX COVERS
50	1.0	J-C/TC-2	S-C/TC-2
75	1.2	J-C/TC-3	S-C/TC-3
100	1.2	J-C/TC-4	S-C/TC-4
150	1.2	J-C/TC-6	S-C/TC-6
225	1.5	J-C/TC-9	S-C/TC-9
300	1.5	J-C/TC-12	S-C/TC-12



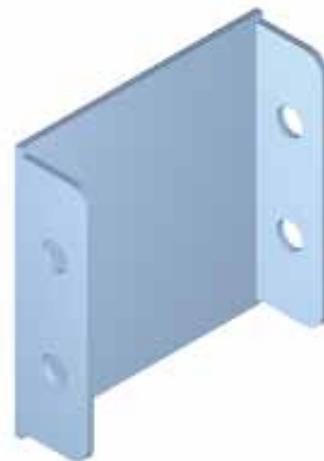
SINGLE COMPARTMENT COVER



DOUBLE COMPARTMENT COVER

## BLIND END

SIZE mm	THICKNESS mm	BLIND END
50 X 50	1.0	BET2-2
75 X 50	1.2	BET3-2
75 X 75	1.2	BET3-3
100 X 50	1.2	BET4-2
100 X 75	1.2	BET4-3
100 X 100	1.2	BET4-4
150 X 50	1.2	BET6-2
150 X 75	1.2	BET6-3
150 X 100	1.2	BET6-4
150 X 150	1.5	BET6-6
225 X 50	1.5	BET9-2
225 X 75	1.5	BET9-3
225 X 100	1.5	BET9-4
225 X 150	1.5	BET9-6
225 X 225	1.5	BET9-9
300 X 50	1.5	BET12-2
300 X 75	1.5	BET12-3
300 X 100	1.5	BET12-4
300 X 150	1.5	BET12-6
300 X 225	1.5	BET12-9
300 X 300	2.0	BET12-12



BLIND END

**Note:**

PSI cable trunking covers can be ordered separately in jet lock or screw lock arrangement as required



**STRUT METAL FRAMING SYSTEMS**

# STRUT METAL FRAMING SYSTEMS

## INTRODUCTION

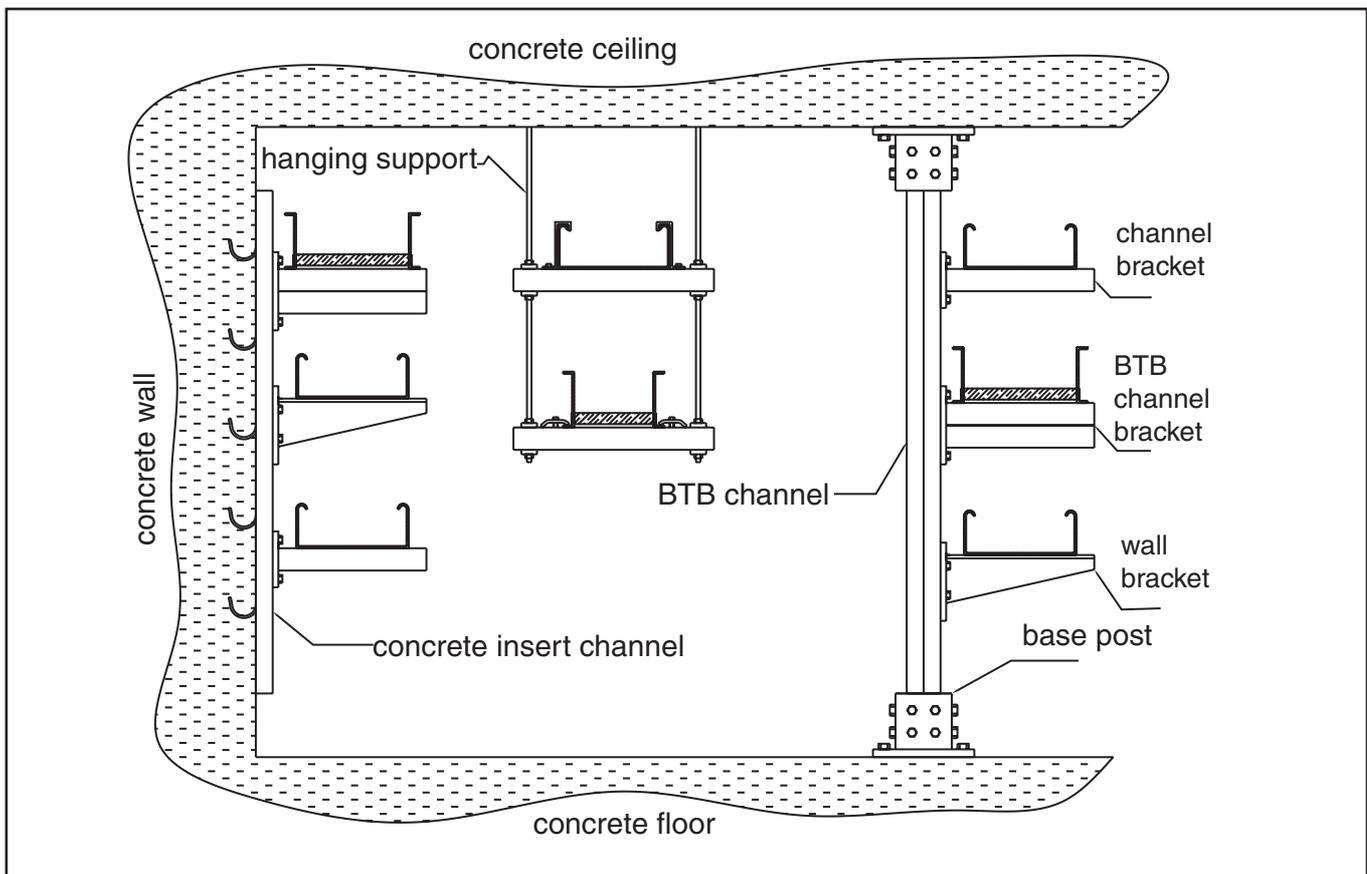
Power Solution Industries offers a comprehensive metal framing system that conforms to BS 6946:1988 (Metal channel cable support systems for electrical installations).

The Power Solution Industries system incorporates the following features

Flexibility of elements of the system can be combined to create an unlimited range of structural designs.

- Rigidity of easily assembled rigid structures can be created without the need for drilling and welding.
- Adjustability of position of components can be easily adjusted & structures can be demounted and components reused.
- Competitiveness & high strength to weight components and ease of assembly make this a cost effective solution to support structural requirements.
- It has many applications for structural support of mechanical as well as electrical services in a wide range of industries and construction projects.

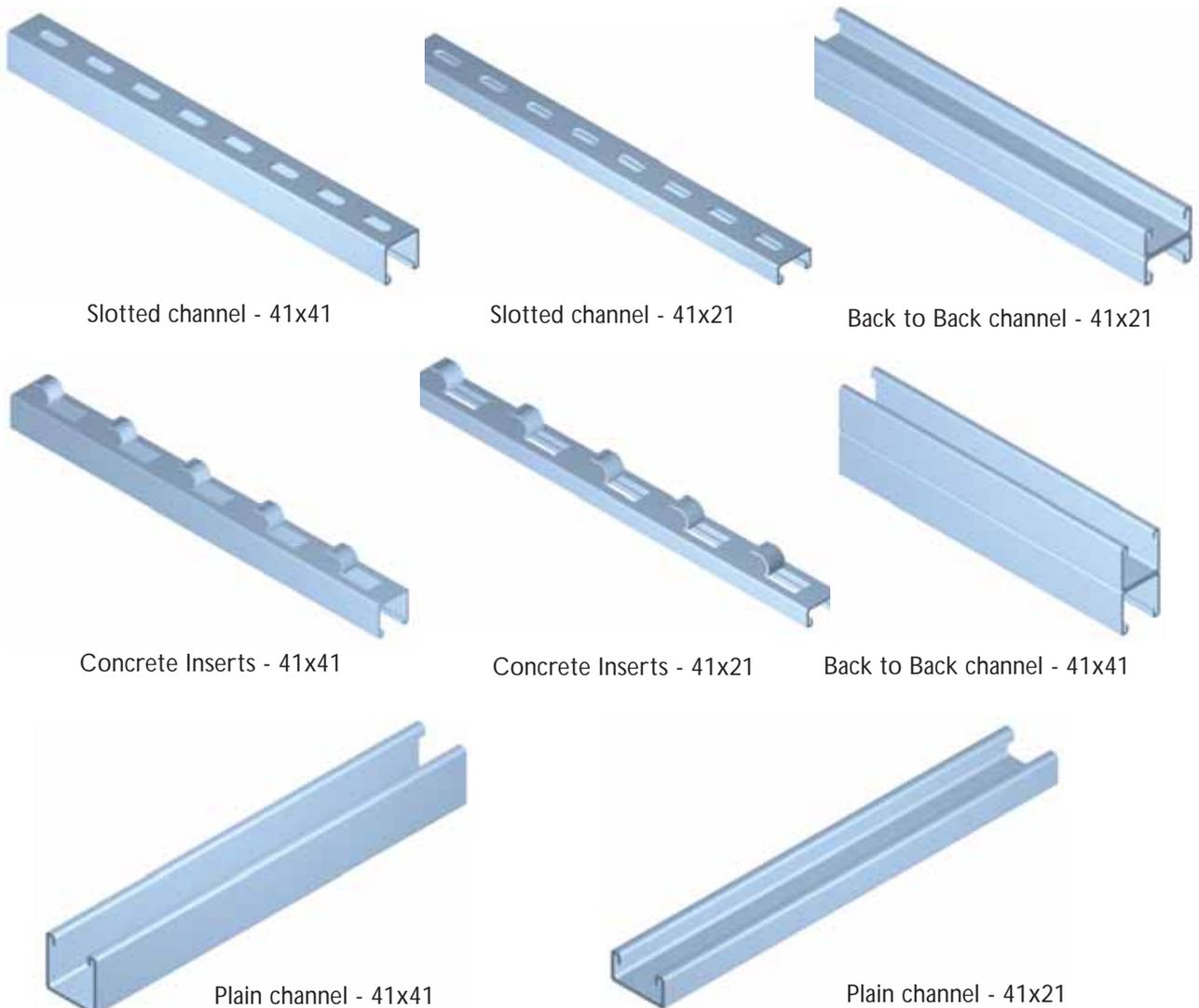
*The standard material finish for strut channel and brackets is HDG Hot Dip Galvanised. The mild steel used has a yield of at least 250 N/mm<sup>2</sup>*



# STRUT METAL FRAMING SYSTEMS

## STRUT CHANNELS

DESCRIPTION	PART REF	GAUGE mm
41x21-3M Plain channel	PC/42/Finish	2.5
41x41-3M Plain channel	PC/44/Finish	2.5
41x21-3M Slotted channel	SC/42/Finish	2.5
41x41-3M Slotted channel	SC/44/Finish	2.5
41x21-3M Back to Back channel	BTB/42/Finish	2.5
41x41-3M Back to Back channel	BTB/44/Finish	2.5
41x21-3M Concrete Inserts	CI/42/Finish	2.5
41x41-3M Concrete Inserts	CI/44/Finish	2.5
41x21-Channel End Caps	CEC/42	
41x41-Channel End Caps	CEC/44	



Note: All strut channels are in a standard length of 3 mts

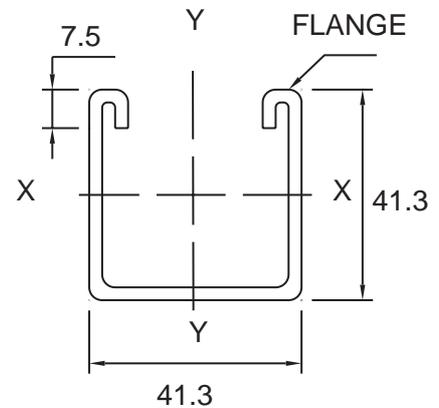
## STRUT CHANNELS

### PLAIN CHANNEL 41 X 41

PC 44 (plain channel 41x 41)

Material thickness = 2.5 mm

Weight = 2.64 Kgs/m

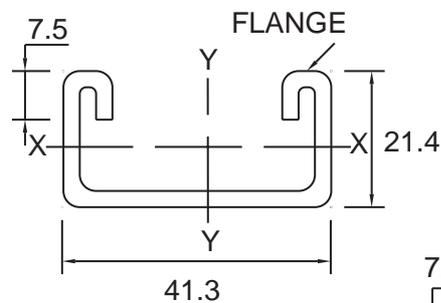


### PLAIN CHANNEL 41 X 21

PC 42 (plain channel 41 x 21)

Material thickness = 2.5 mm

Weight = 1.84 Kgs/m

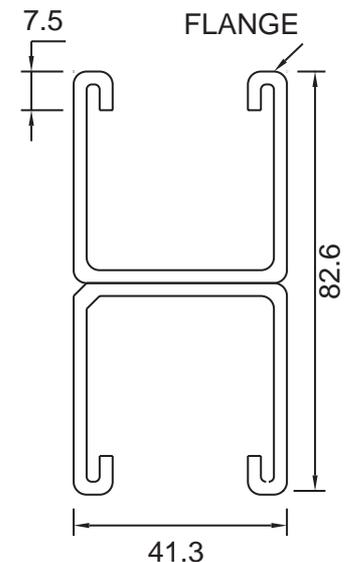


### BACK TO BACK CHANNEL 41 X 41

BTB 44 (back to back channel 41 x 41)

Material thickness = 2.5 mm

Weight = 5.28 Kgs/m

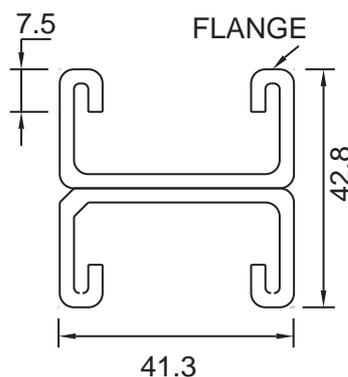


### BACK TO BACK CHANNEL 41 X 21

BTB 42 (back to back channel 41 x 21)

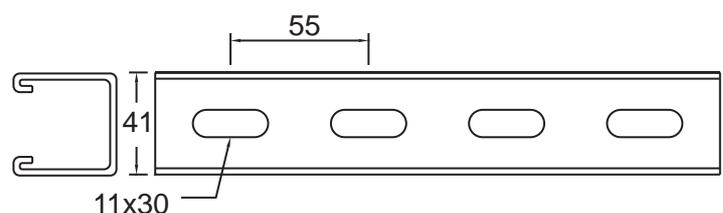
Material thickness = 2.5 mm

Weight = 3.68 Kgs/m



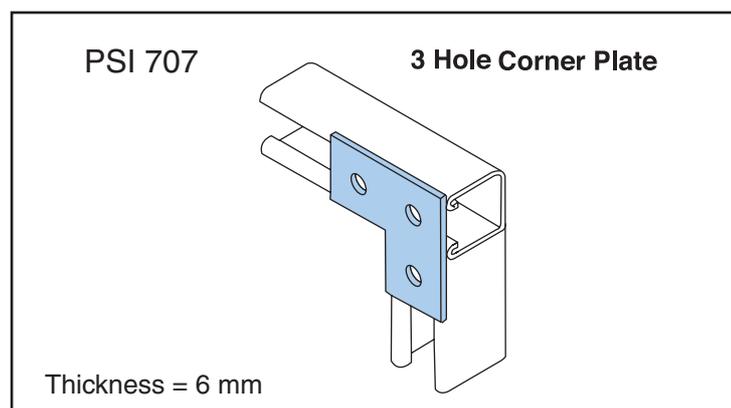
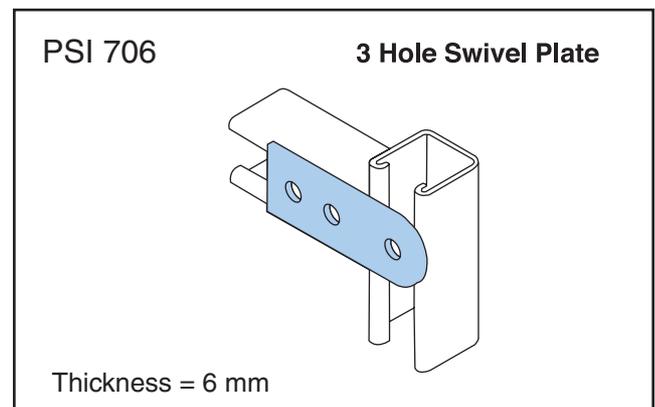
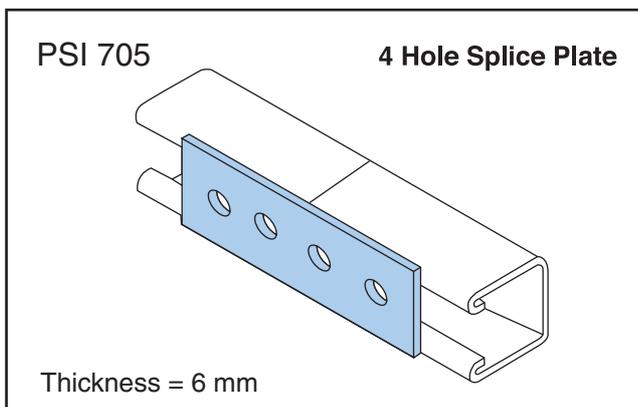
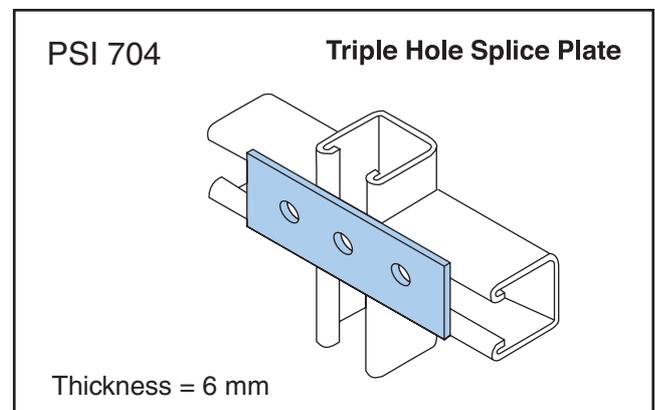
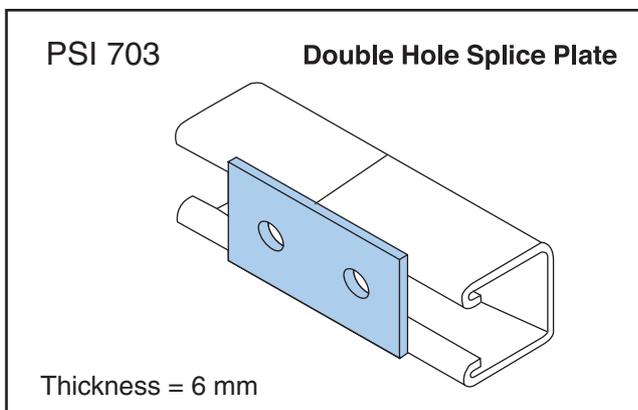
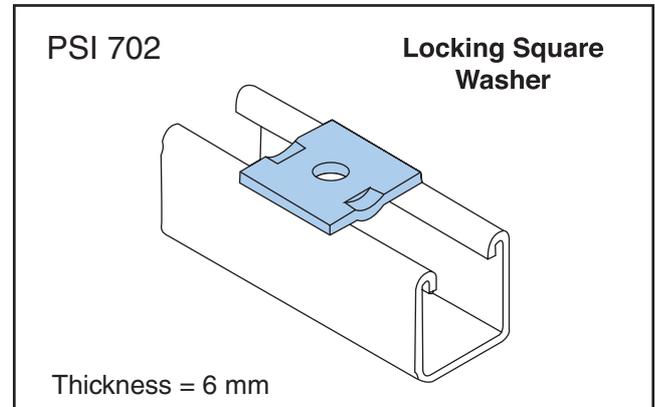
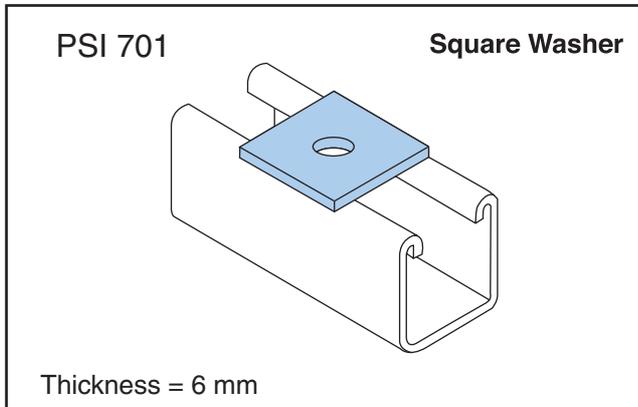
### SLOT PATTERNS

Strut channels are produced with slots also with a standard length of 3 mtrs. Extra long up to 6 mtrs. can also be produced on request.

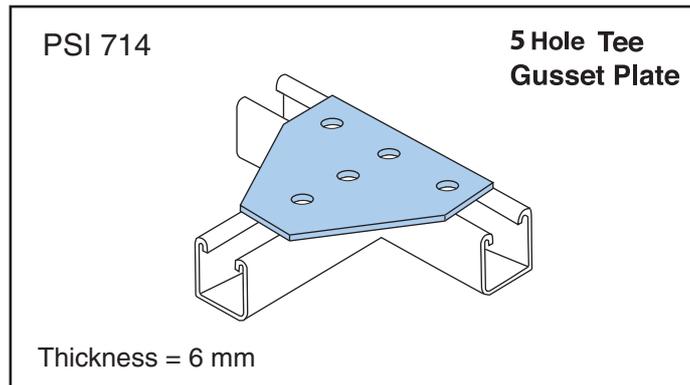
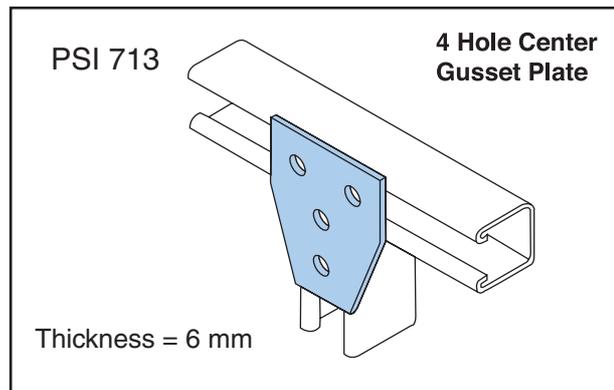
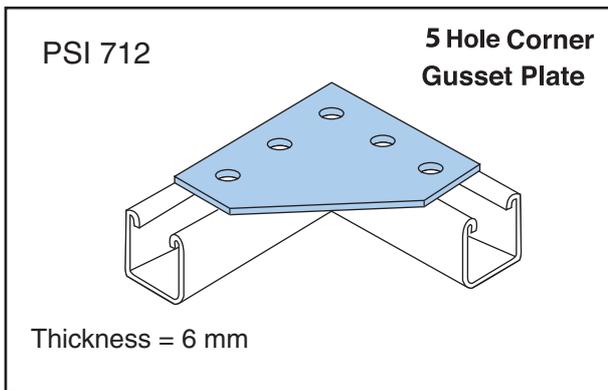
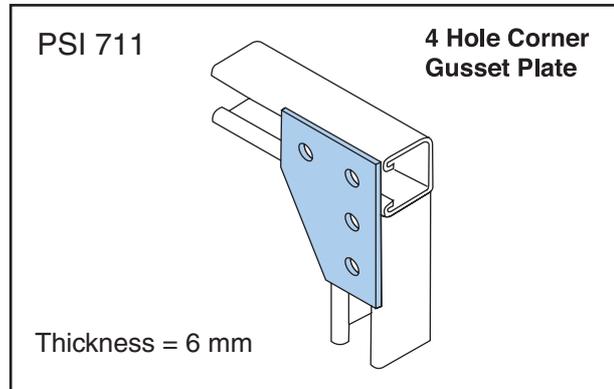
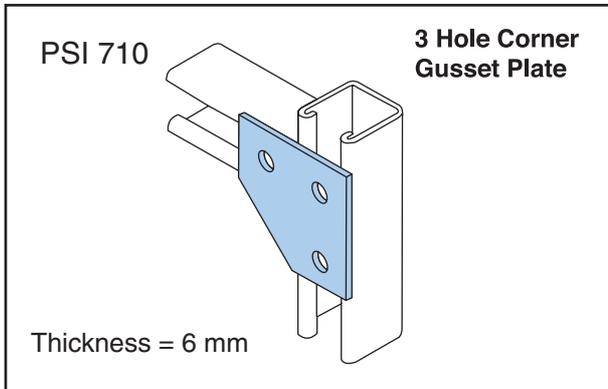
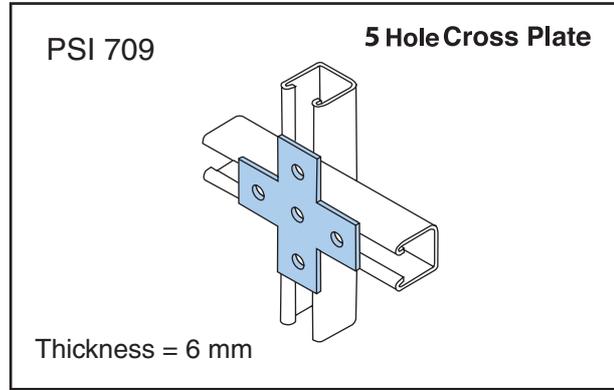
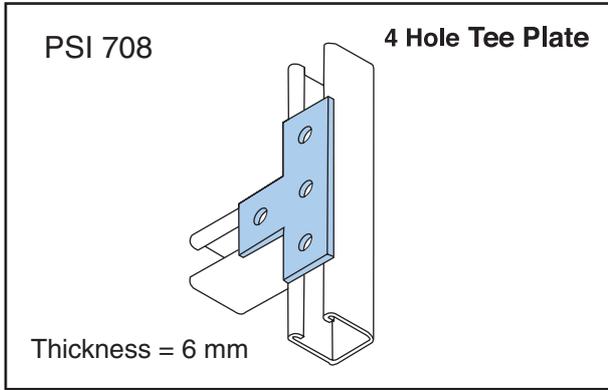


# STRUT METAL FRAMING SYSTEMS

## FLAT PLATE FITTINGS

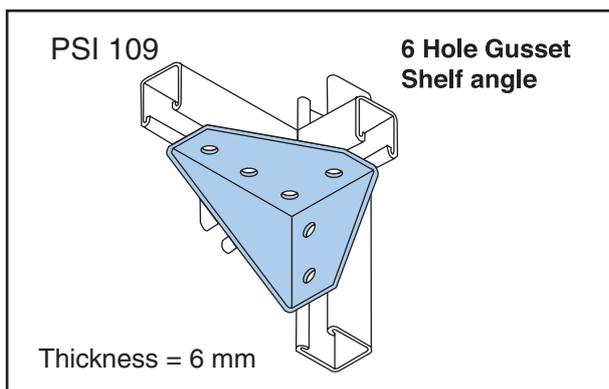
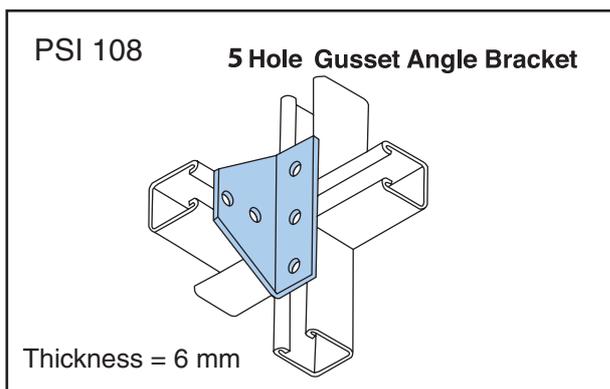
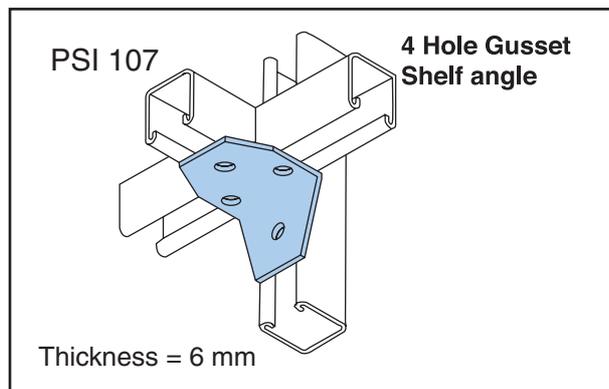
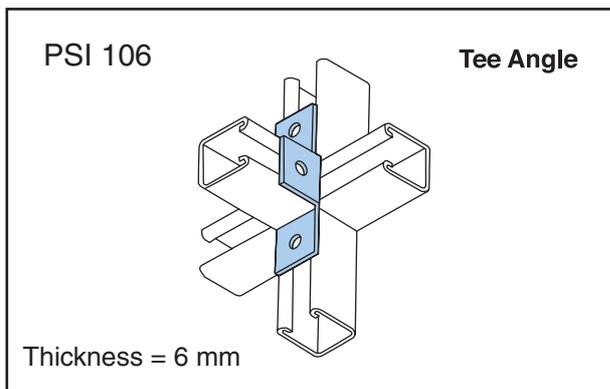
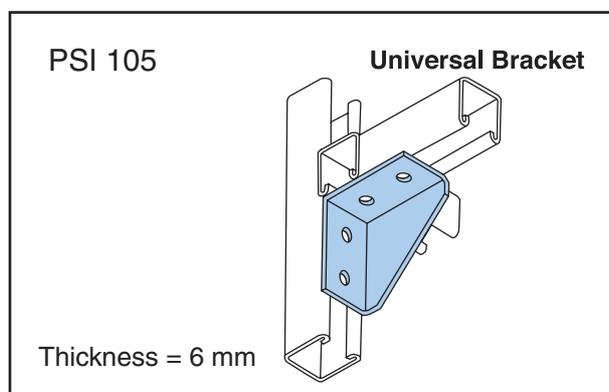
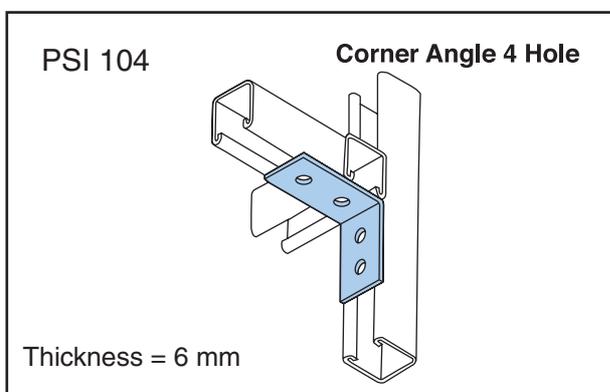
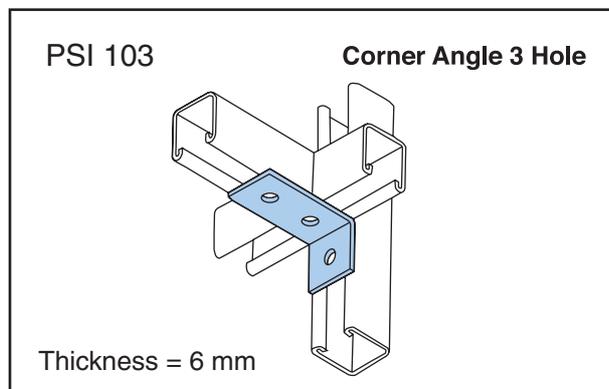
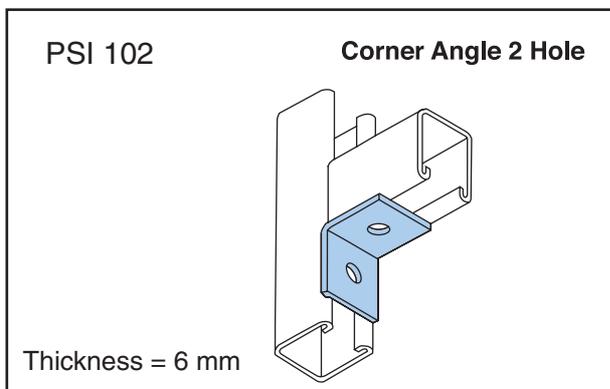


## FLAT PLATE FITTINGS



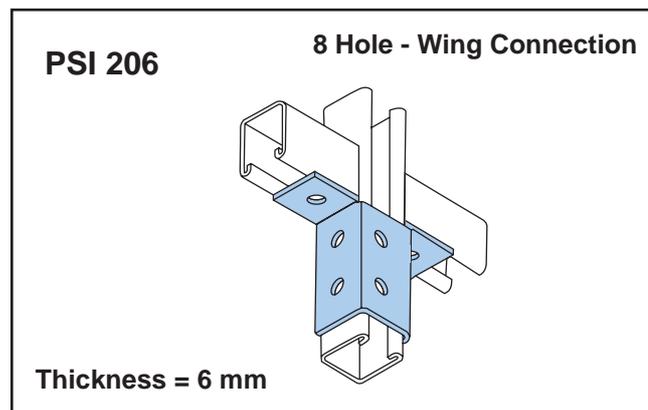
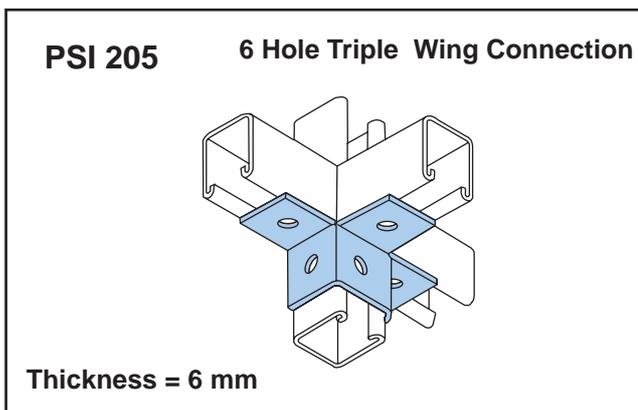
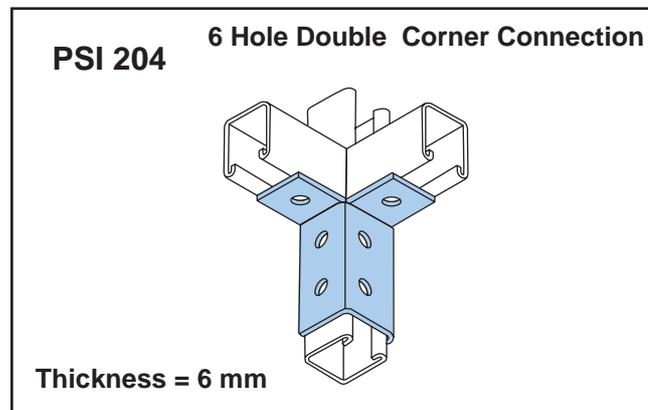
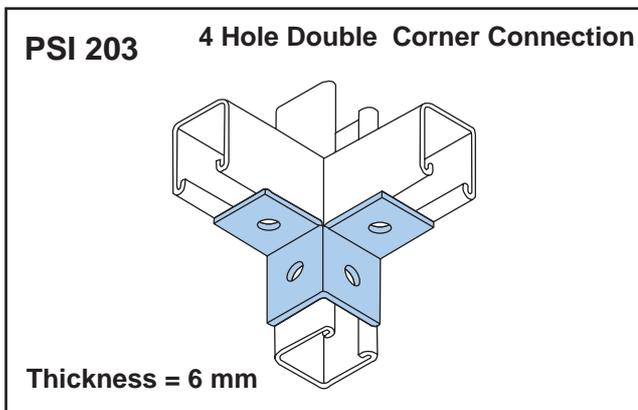
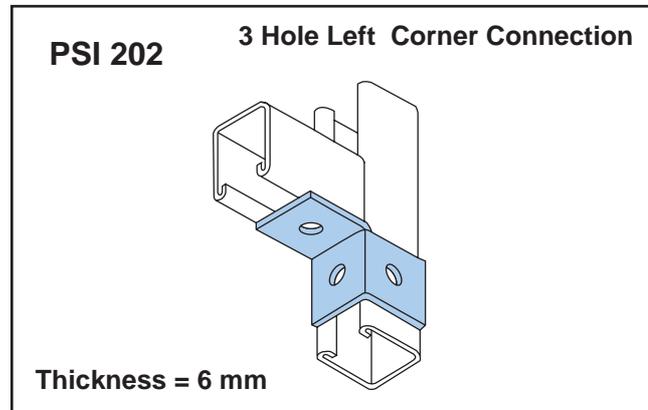
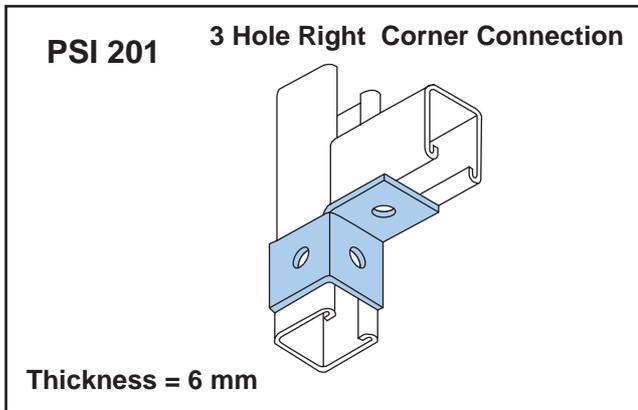
# STRUT METAL FRAMING SYSTEMS

## ANGLE FITTINGS



# STRUT METAL FRAMING SYSTEMS

## WING FITTINGS



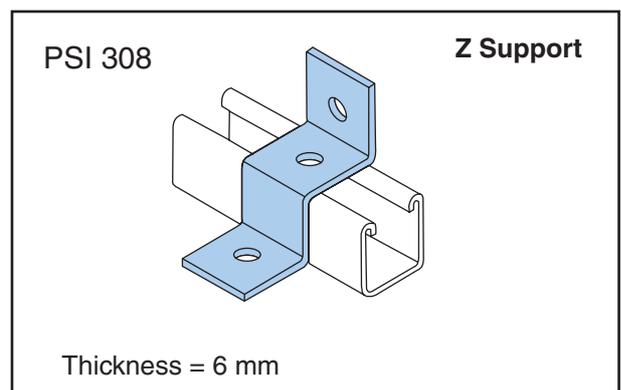
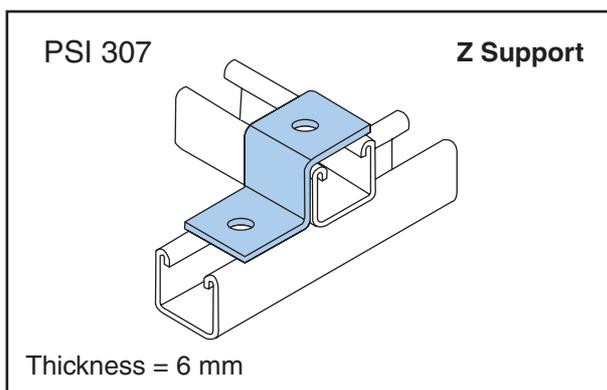
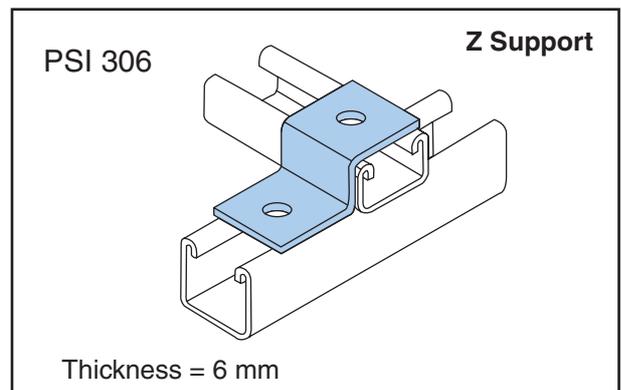
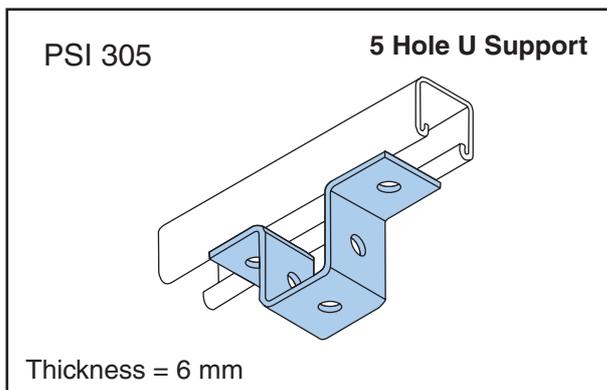
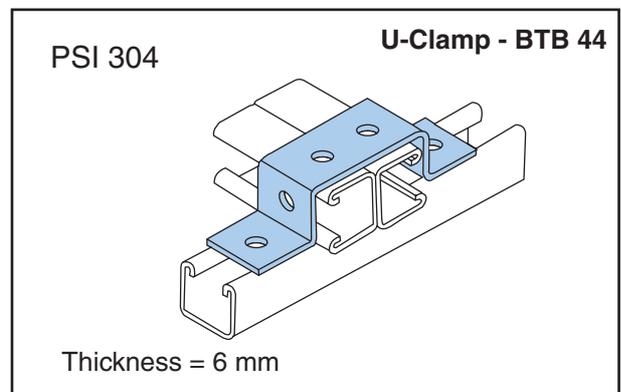
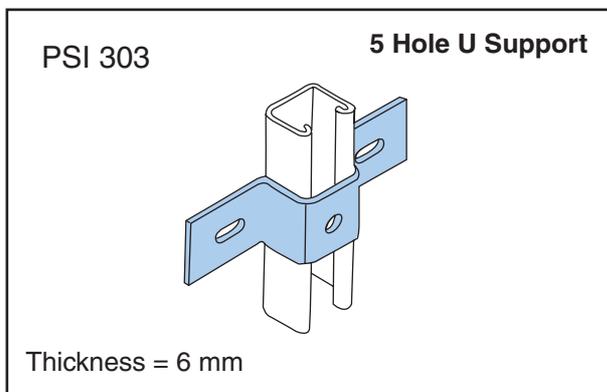
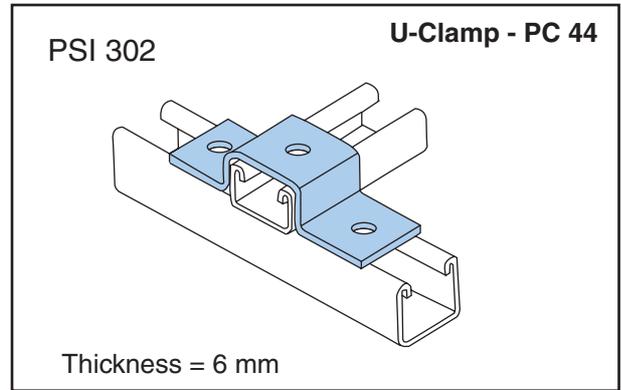
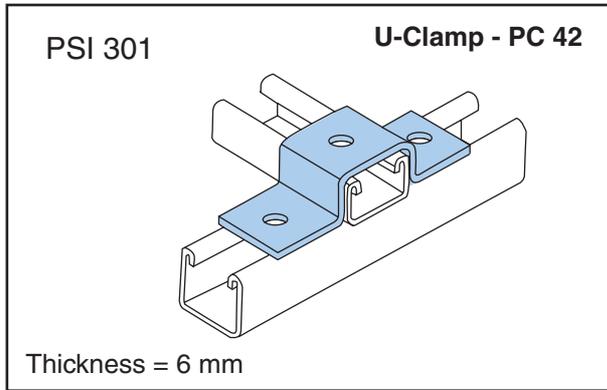
## CHANNEL NUTS

DESCRIPTION	6mm	8mm	10mm	12mm
Channel Nut Without Spring	PSI / 6 CNWS	PSI / 8 CNWS	PSI / 10 CNWS	PSI / 12 CNWS
Channel Nut With Short Spring	PSI / 6 CNSS	PSI / 8 CNSS	PSI / 10 CNSS	PSI / 12 CNSS
Channel Nut With Long Spring	PSI / 6 CNLS	PSI / 8 CNLS	PSI / 10 CNLS	PSI / 12 CNLS

Note: - All Channel Nuts are zinc plated to BS3382:Part 2

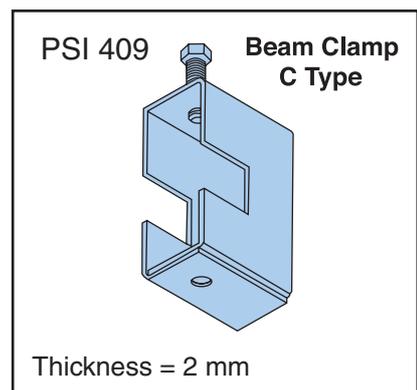
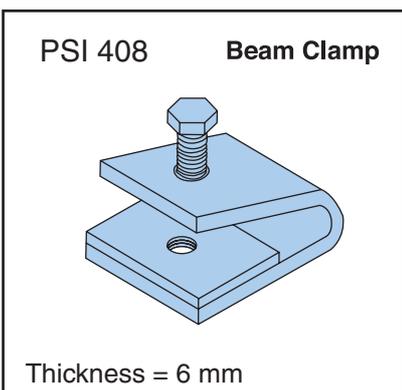
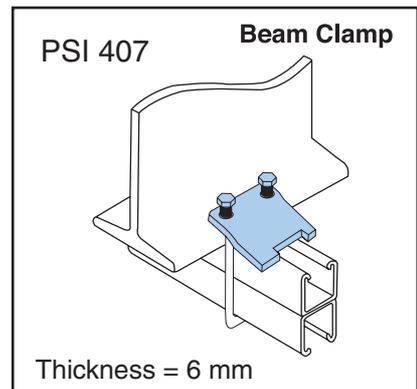
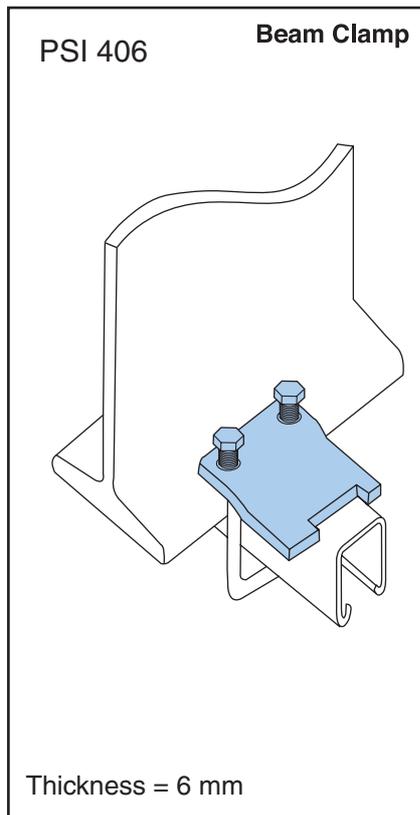
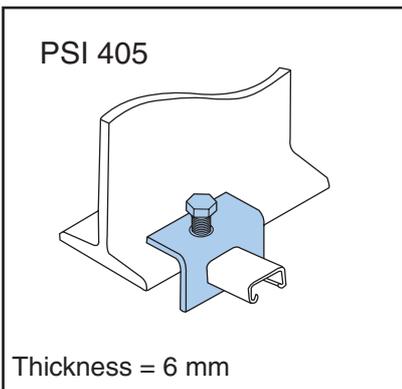
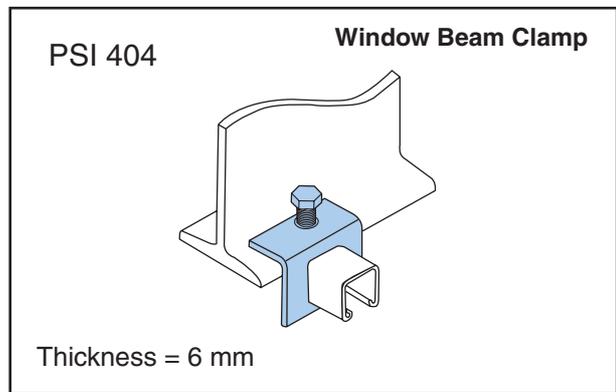
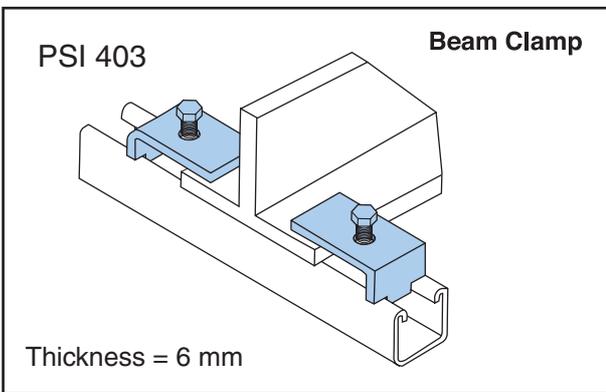
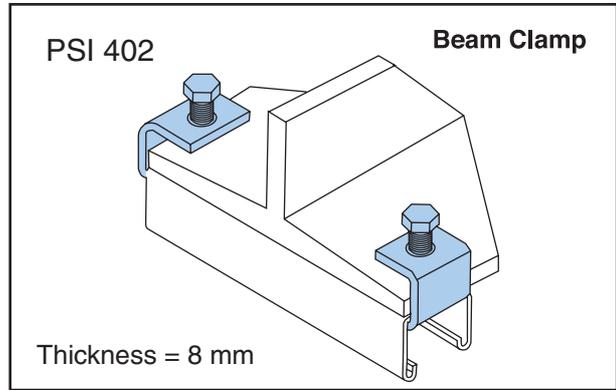
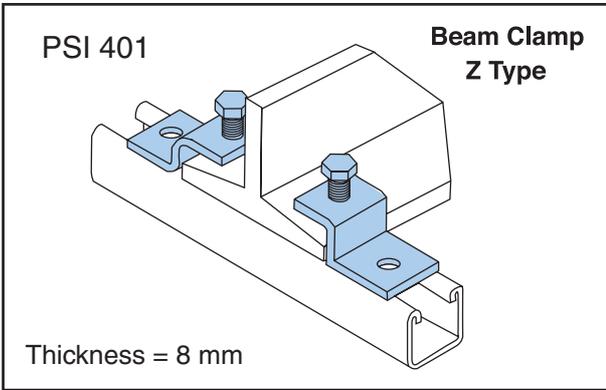
# STRUT METAL FRAMING SYSTEMS

## Z & U FITTINGS



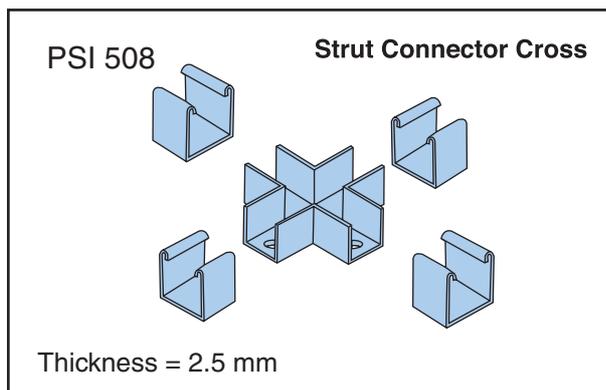
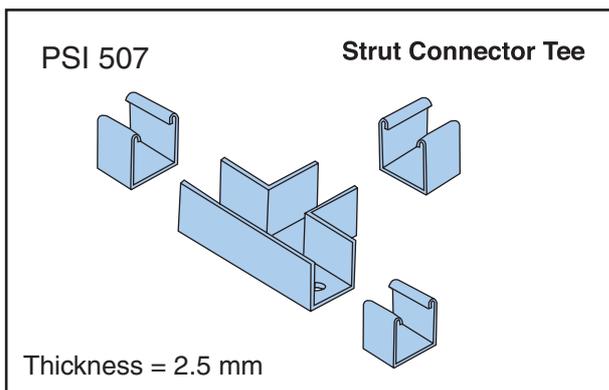
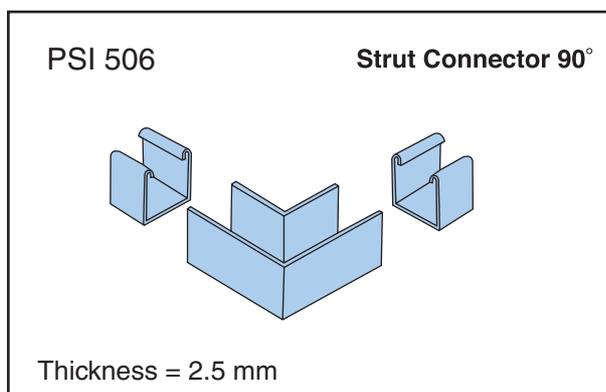
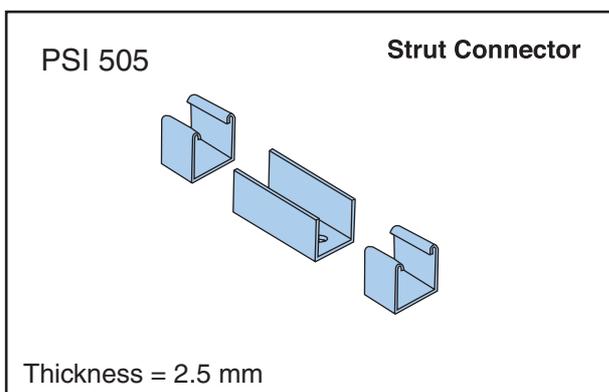
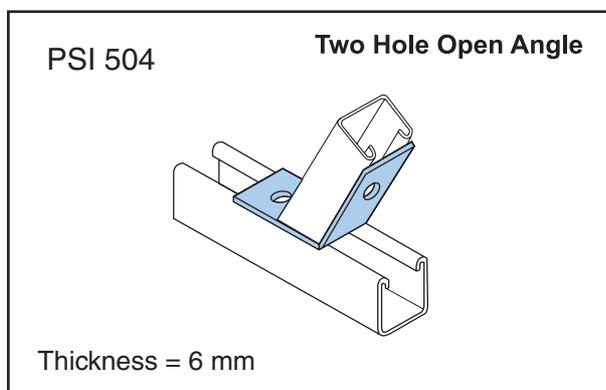
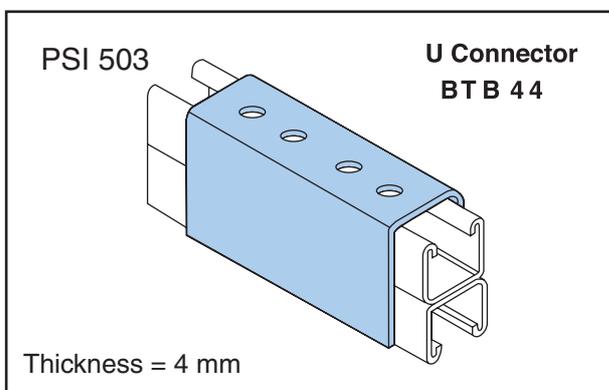
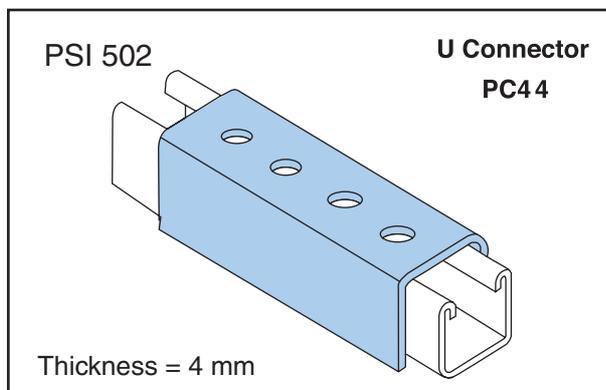
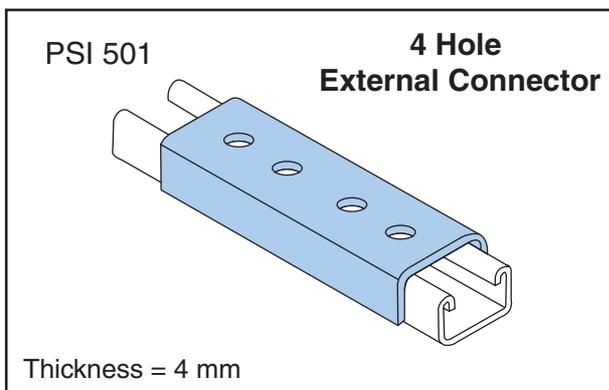
# STRUT METAL FRAMING SYSTEMS

## BEAM CLAMPS



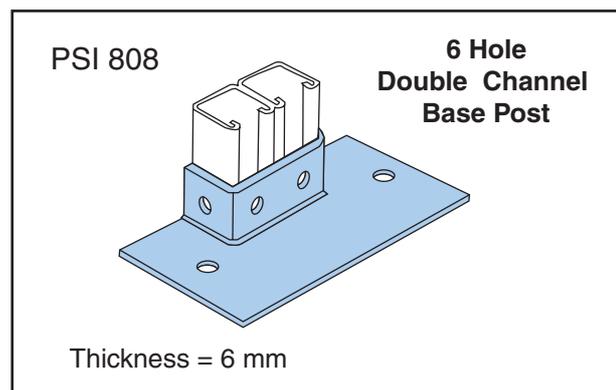
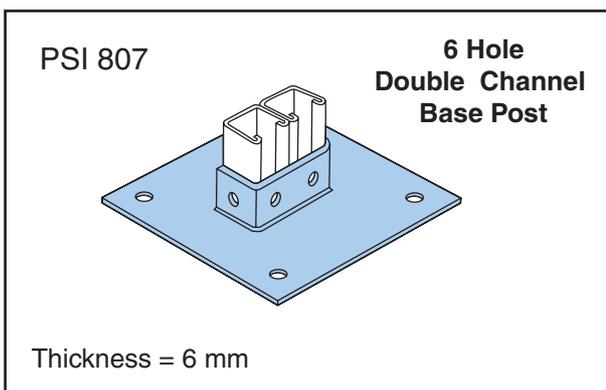
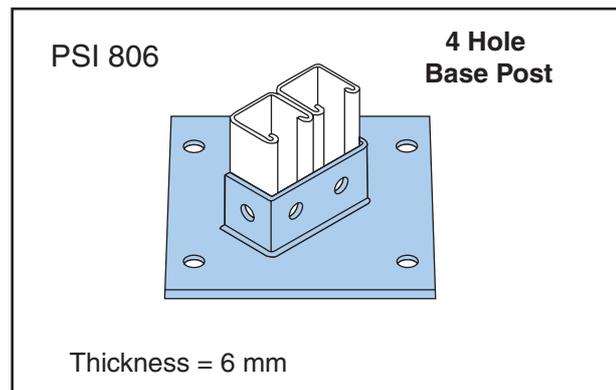
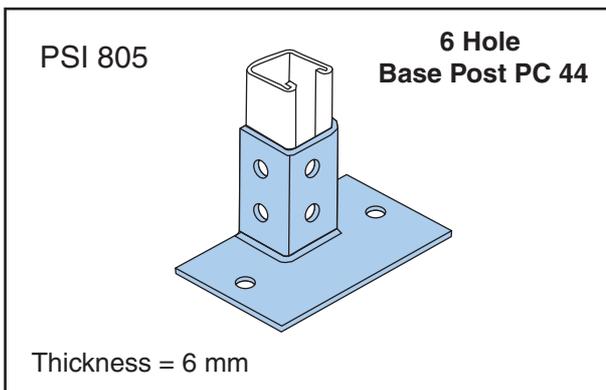
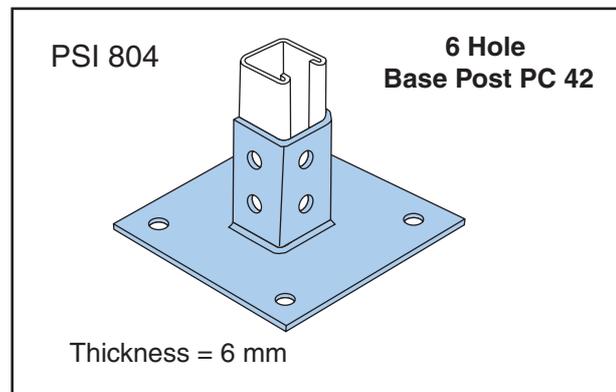
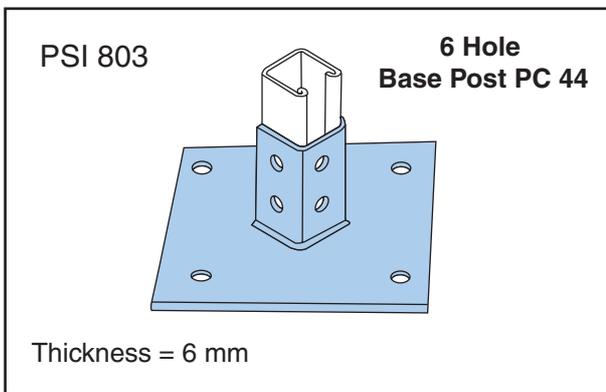
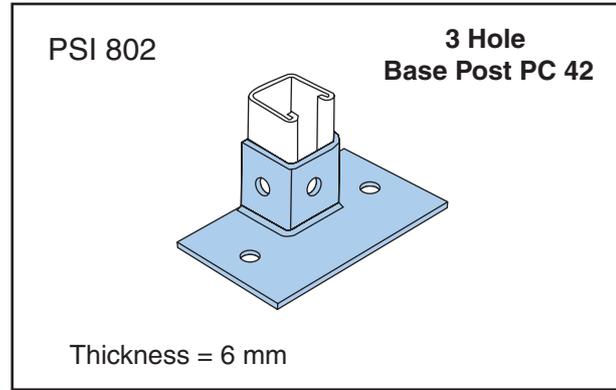
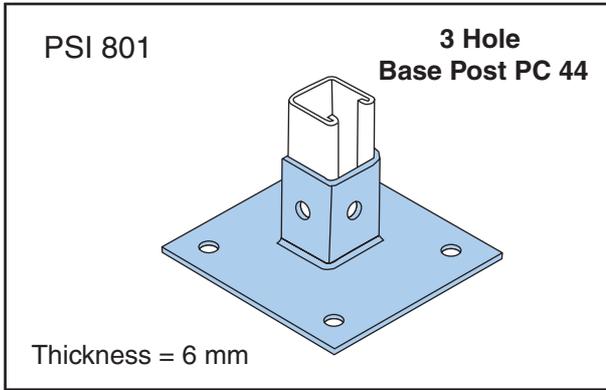
# STRUT METAL FRAMING SYSTEMS

## CHANNEL CONNECTORS



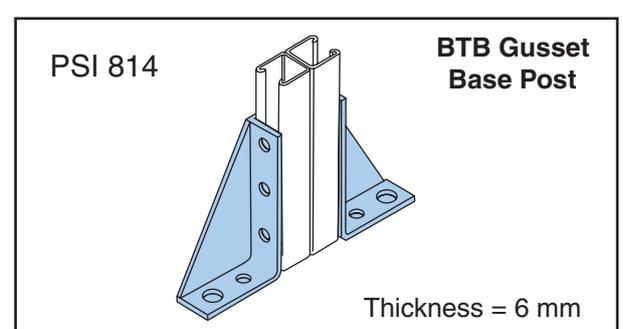
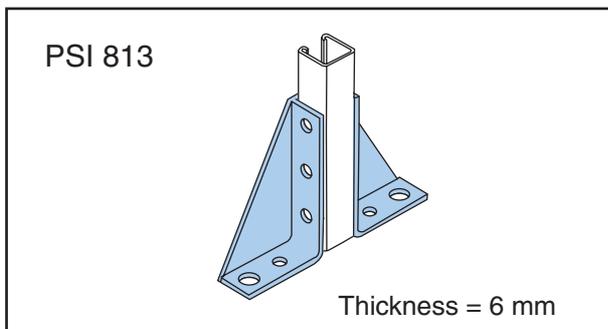
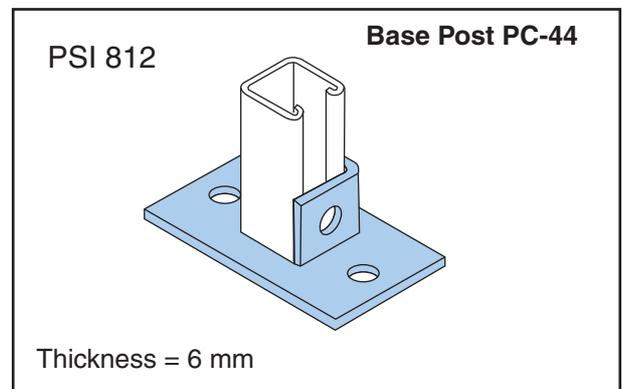
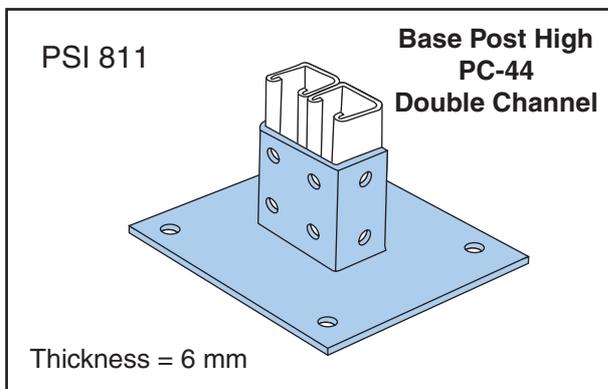
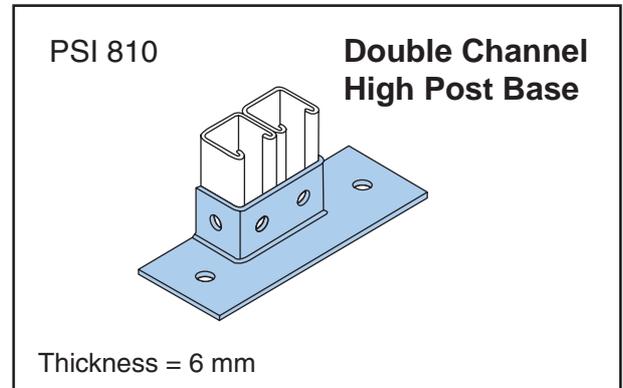
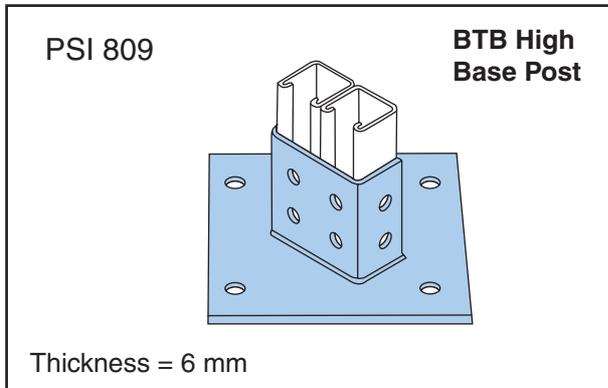
# STRUT METAL FRAMING SYSTEMS

## BASE POSTS

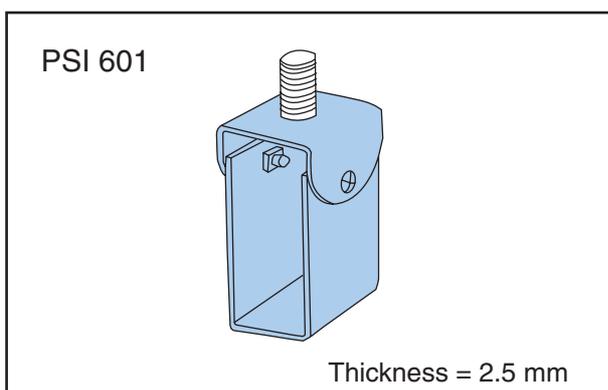


# STRUT METAL FRAMING SYSTEMS

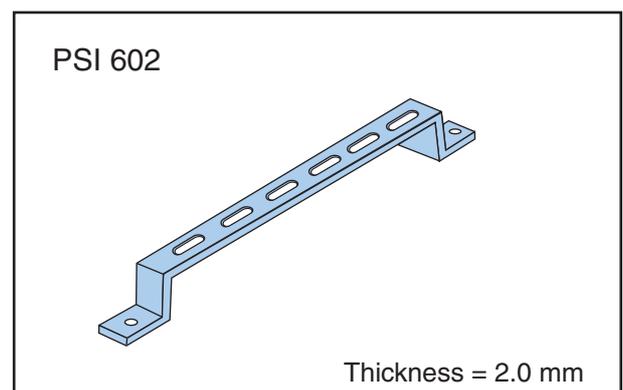
## BASE POSTS



## CHANNEL HANGERS



## FLOOR BRACKET



## CANTILEVERS

DESCRIPTION	SIZE	PART REF
All dimensions are in mm		
Cantilever Arm	75	TYPE - CA / 75 / Finish
Cantilever Arm	100	TYPE - CA / 100 / Finish
Cantilever Arm	150	TYPE - CA / 150 / Finish
Cantilever Arm	225	TYPE - CA / 225 / Finish
Cantilever Arm	300	TYPE - CA / 300 / Finish
Cantilever Arm	450	TYPE - CA / 450 / Finish
Cantilever Arm	600	TYPE - CA / 600 / Finish
Cantilever Arm	750	TYPE - CA / 750 / Finish
Cantilever Arm	900	TYPE - CA / 900 / Finish
Cantilever Arm	1000	TYPE - CA / 1000 / Finish

DESCRIPTION	TYPE
Cantilever Arm	PSI - 1
Cantilever Arm	PSI - 2
Cantilever Arm	PSI - 3
Cantilever Arm	PSI - 4
Cantilever Arm	PSI - 5
Cantilever Arm	PSI - 6
Cantilever Arm	PSI - 7
Cantilever Arm	PSI - 8
Cantilever Arm	PSI - 9
Cantilever Arm	PSI - 10



END CAP 41 X 21



END CAP 41 X 41

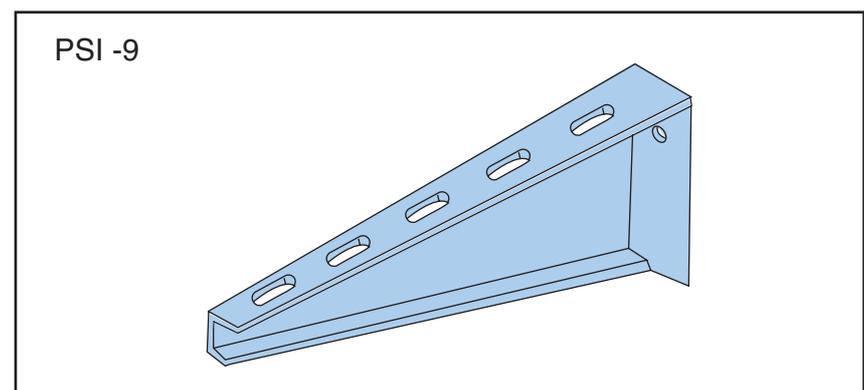
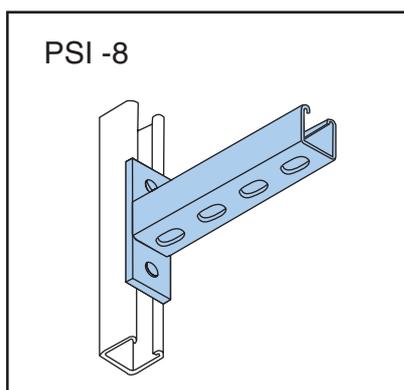
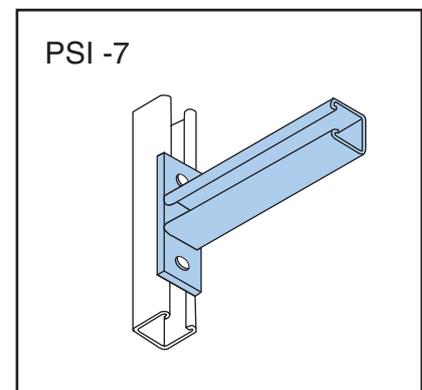
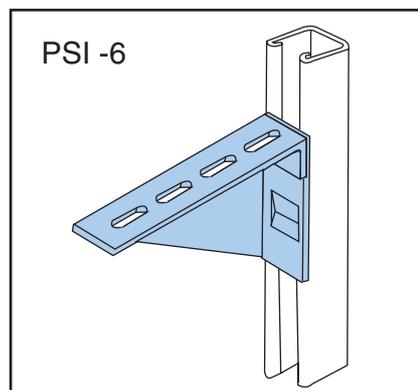
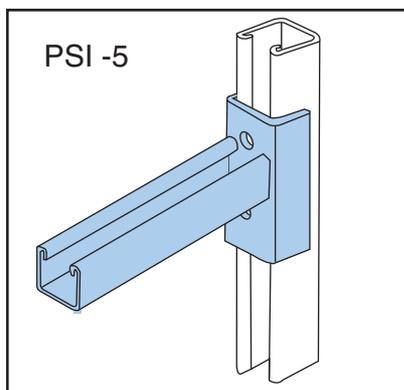
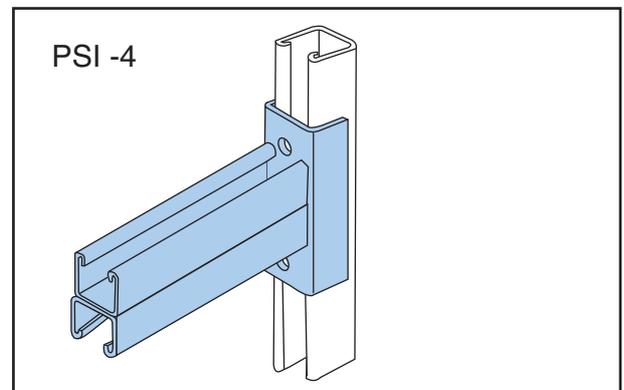
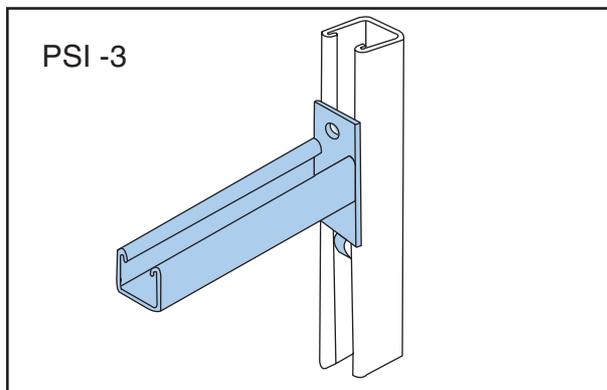
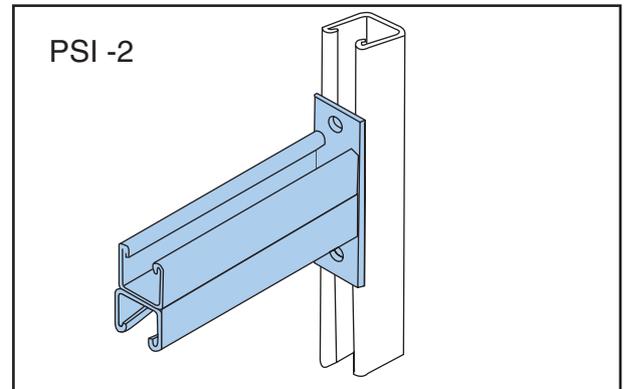
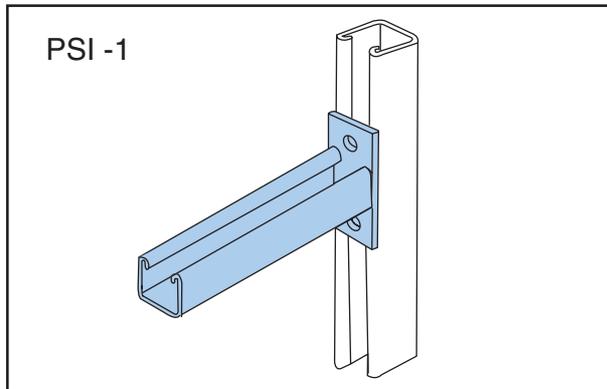
To order cantilever arms for your designed installation, specify the type of the cantilever you require. Types are given in the table adjacent and shown on the next page.

### STANDARD FINISHES

- HDG Hot dip Galvanized to BS EN ISO 1461:1999 (Formerly BS 729)
- PG Pre-galvanized to BS EN 10142 & 10143
- PC Powder Coating to suit clients requirements

# STRUT METAL FRAMING SYSTEMS

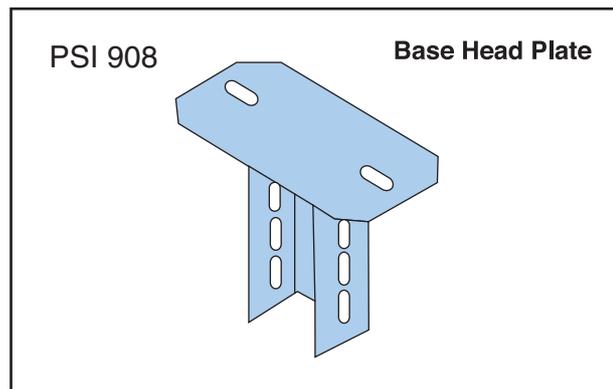
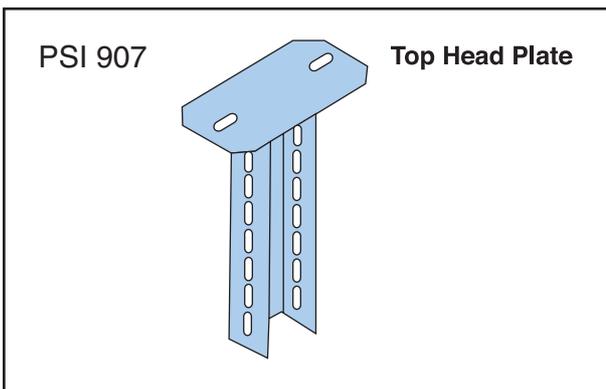
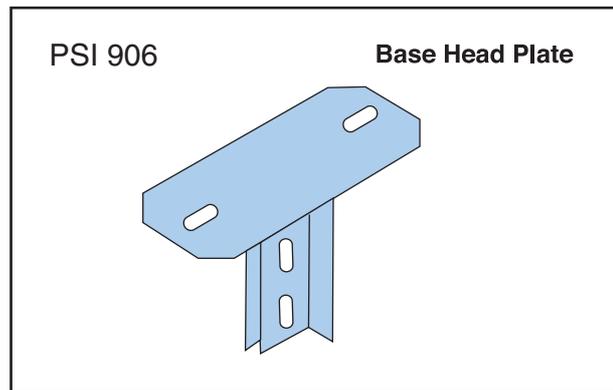
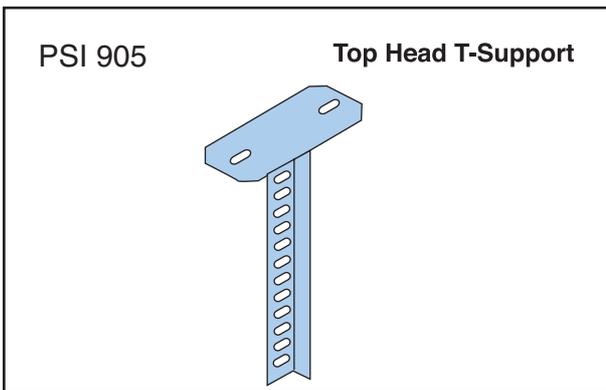
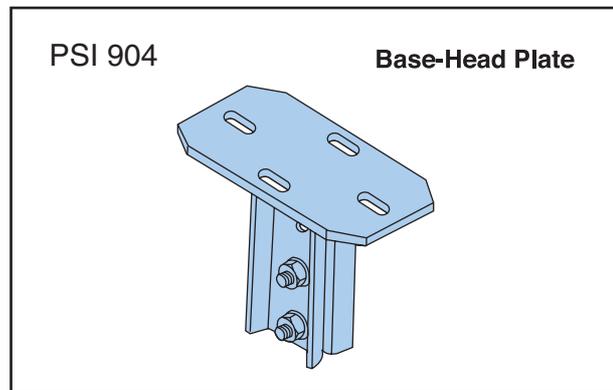
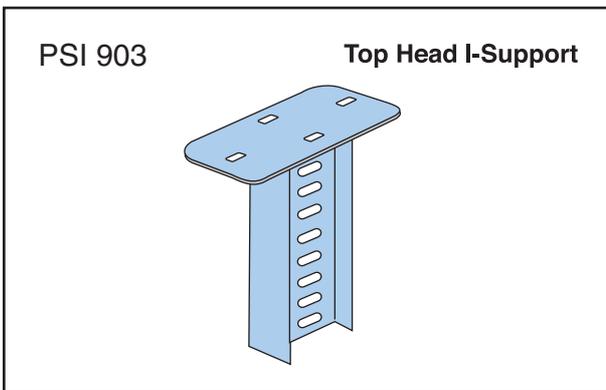
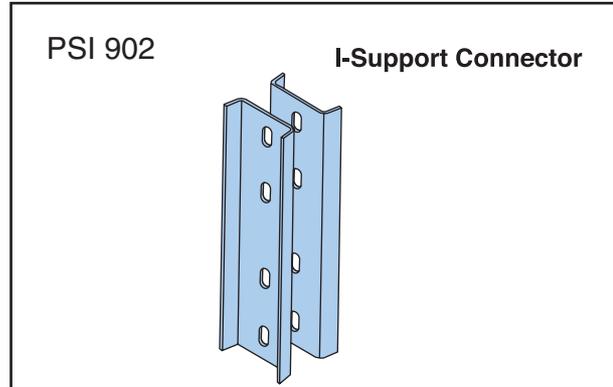
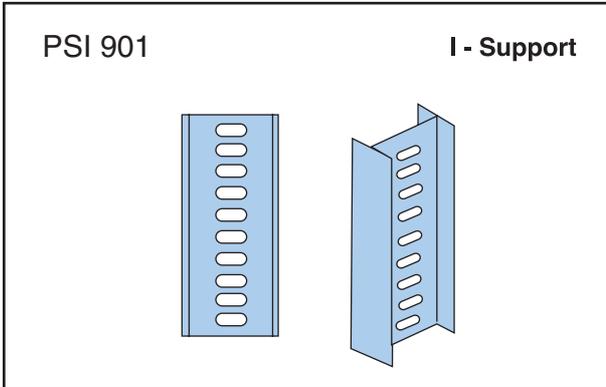
## CANTILEVERS





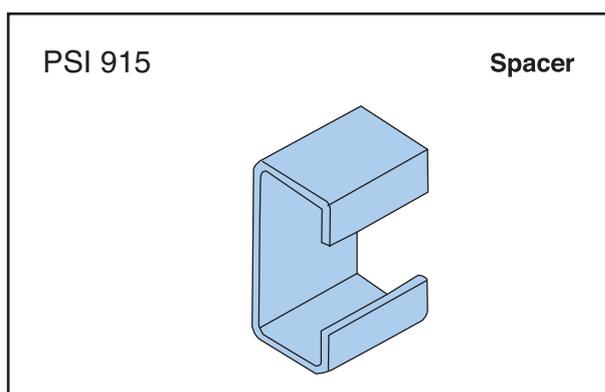
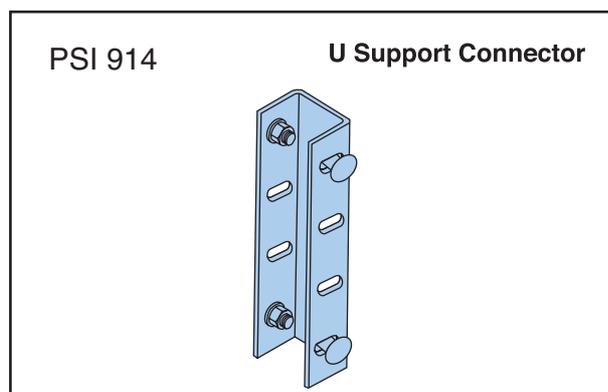
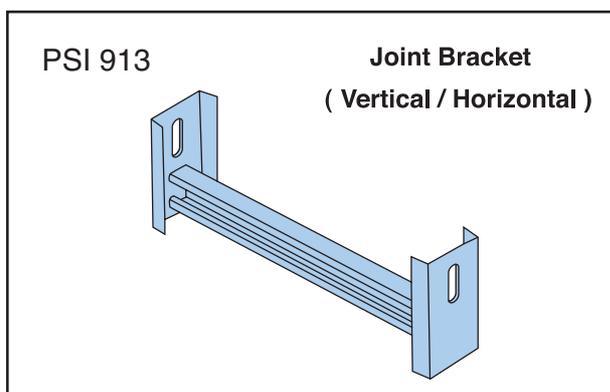
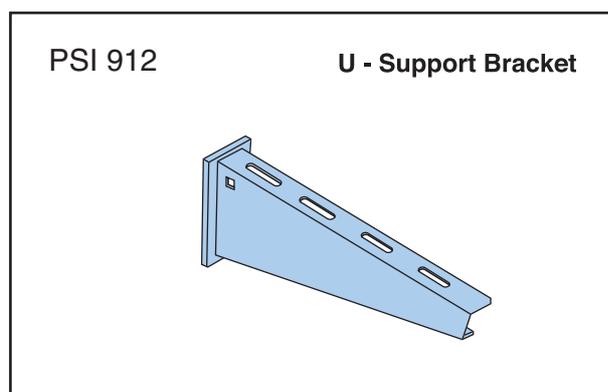
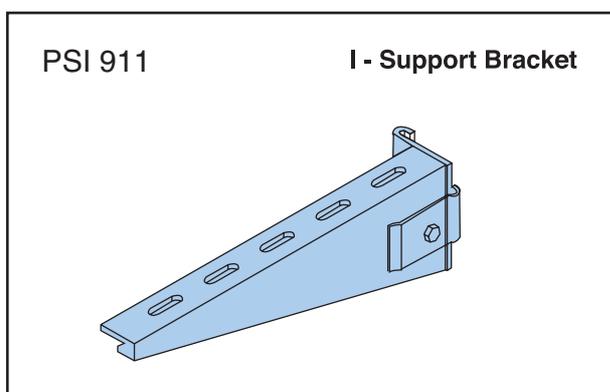
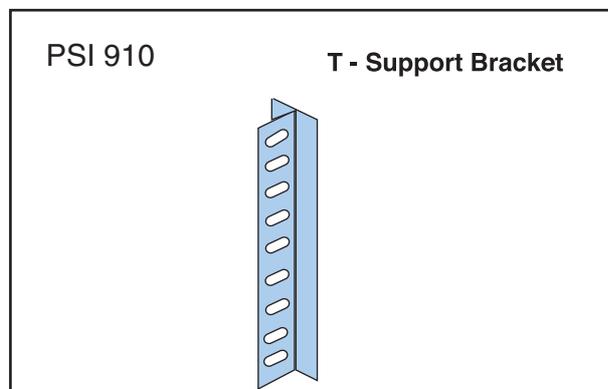
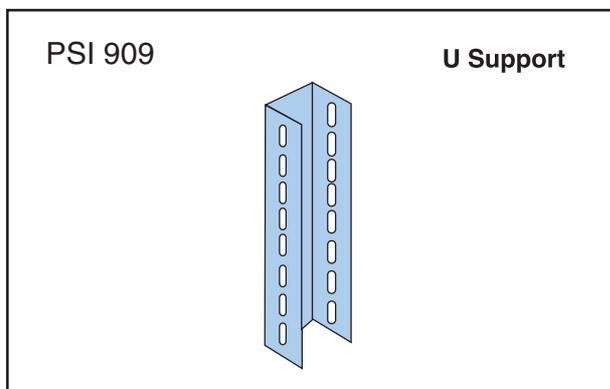
# STRUT METAL FRAMING SYSTEMS

## I-BEAM SUPPORTS



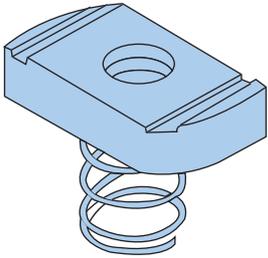
# STRUT METAL FRAMING SYSTEMS

## I-BEAM SUPPORTS

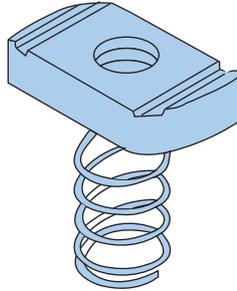


# STRUT METAL FRAMING SYSTEMS

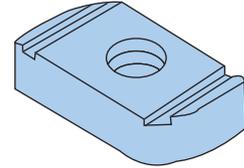
## FASTNERS



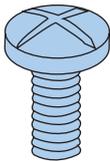
Channel Nut with short spring



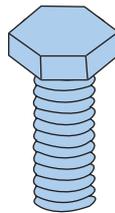
Channel Nut with long spring



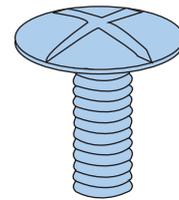
Channel Nut without spring



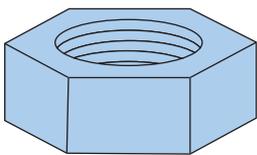
Machine Screw



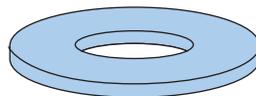
Hexagonal Bolt



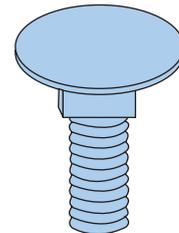
Roofing Bolt



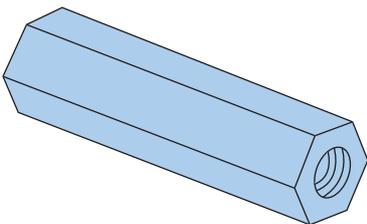
Hexagonal Nut



Flat Washer



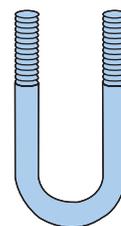
Carriage Bolt



Channel Nut



Threaded Rod



U - Bolt



## PROPERTIES OF SECTION PROFILES.

		Axis XX		
	Moment of inertia I (mm <sup>4</sup> )	Section modulus Z (mm <sup>3</sup> )	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

		Axis YY		
	Moment of inertia I (mm <sup>4</sup> )	Section modulus Z (mm <sup>3</sup> )	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	186000	9200	16.6	1440
BTB 42	112000	5400	15.6	845

### 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	-	1.49	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	-	2.6	44.1
1500	2.32	2.3	1.2	23.0
2000	1.74	1.3	0.6	13.3
2500	1.39	0.8	0.4	8.7
3000	1.16	0.6	0.3	-

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 slip 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.

#### Pull out loads

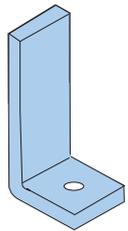
Strut channel nut type	Recommended maximum load (kN)
M12	9.0
M10	7.0
M8	5.0
M6	3.5

Resistance to slip.

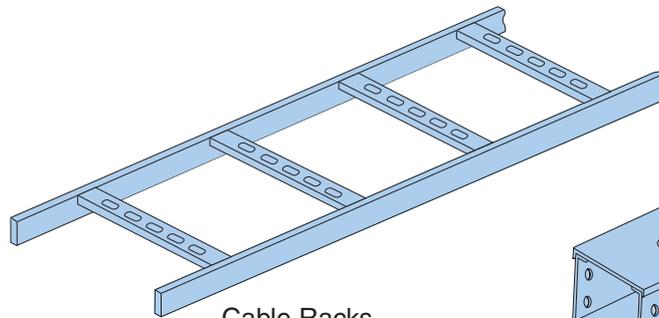
To provide resistance to slip at bolted connections it is recommended that M12 set screws should be used with M12 strut channel nuts, torque tightened to 65 Nm.

The loading data for bracket connections is given with other data on brackets, this incorporates resistance to slip.

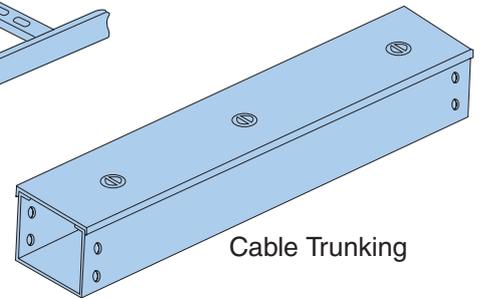
# TELECOMMUNICATION SUPPORT SYSTEM



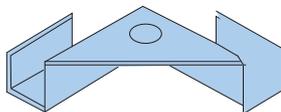
Rack Foot



Cable Racks



Cable Trunking



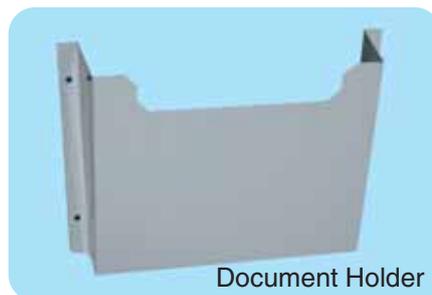
Corner Clip



Ply Mouth



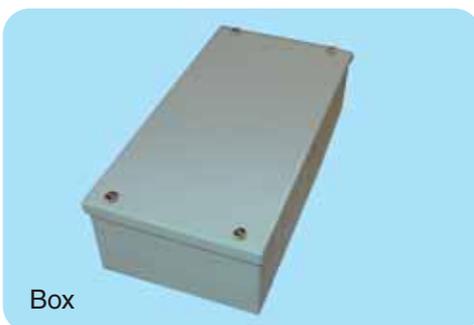
Enclosure



Document Holder



Splice Clamps



Box

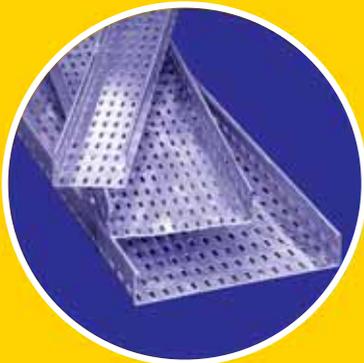


Ply Mouth

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**Power Solution Industries**

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A CABLE MANAGEMENT SYSTEM

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**STRUT METAL FRAMING SYSTEMS**



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