



USHA ENGINEERS

Cable Tray Manufacturing

USHA ENGINEERS

(Cable Tray Manufacturing)
Earthing Solution
Electrical Box Manufacturing
Street Light Pole Manufacturing

:: ADDRESS ::

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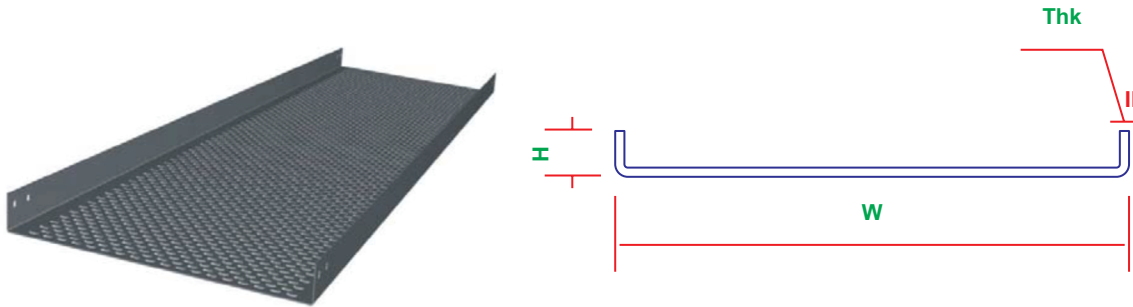
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www.ushaengineers.in
www.ushagroup.in



LIGHT DUTY STRAIGHT FLANGE PERFORATED CABLE TRAYS



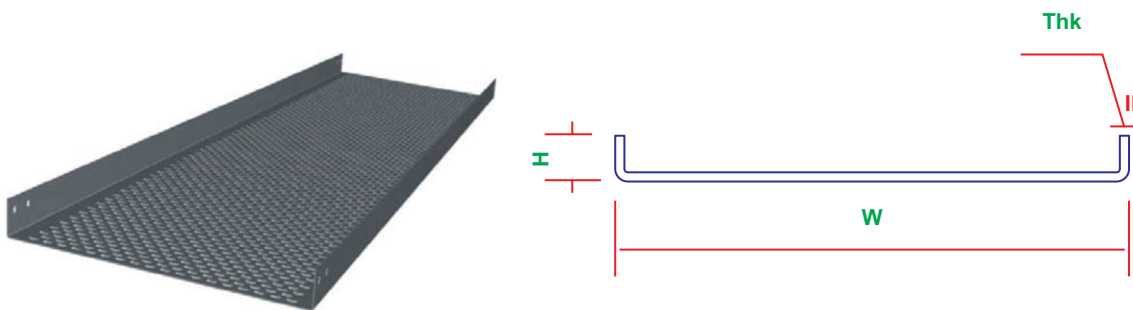
Light Duty Straight Flange

W	H	THK
50mm to 900mm	25mm	1.6mm - 2mm

Note : Above size are standard, any size can be offered.

- i) Width from 50mm to 900mm
- ii) Thickness from 1.6mm to 2 mm

LIGHT DUTY STRAIGHT FLANGE PERFORATED CABLE TRAYS



Medium Duty Straight Flange

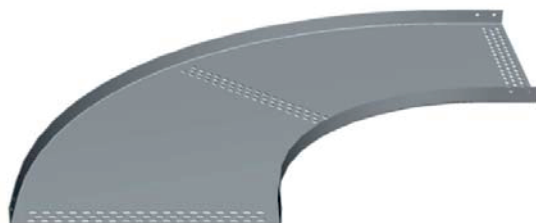
W	H	THK
100mm to 900mm	50mm	1.6mm - 2mm

Note : Above size are standard, any size can be offered.

- i) Width from 100mm to 900mm
- ii) Thickness from 1.6mm to 2 mm



90° HORIZONTAL BEND LIGHT AND MEDIUM DUTY STRAIGHT FLANGE PERFORATED CABLE TRAYS



90° Horizontal Bend Light and Medium Duty Straight Flange

W	H	THK
100mm to 900mm	25mm, 50mm	1.6mm - 2mm

Note : Above size are standard, any size can be offered.

- i) Width from 100mm to 900mm
- ii) Thickness from 1.6mm to 2 mm
- iii) Radius 450mm, 600mm, 1000mm, 1500mm, 2000mm

90° VERTICAL BEND LIGHT AND MEDIUM DUTY STRAIGHT FLANGE PERFORATED CABLE TRAYS



90° Vertical Light and Medium Duty Straight Flange

W	H	THK
100mm to 900mm	25mm, 50mm	1.6mm - 2mm

Note : Above size are standard, any size can be offered.

- i) Width from 100mm to 900mm
- ii) Thickness from 1.6mm to 2 mm
- iii) Radius 450mm, 600mm, 1000mm, 1500mm, 2000mm



'T' BEND LIGHT AND MEDIUM DUTY STRAIGHT FLANGE PERFORATED CABLE TRAYS



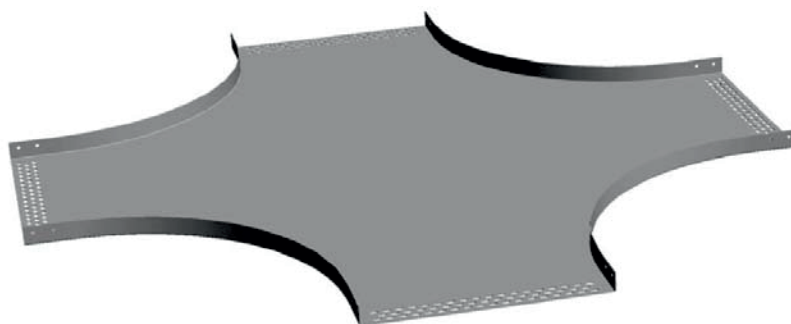
'T' Bend Light and Medium Duty Straight Flange

W	H	THK
100mm to 900mm	25mm, 50mm	1.6mm - 2mm

Note : Above size are standard, any size can be offered.

- i) Width from 100mm to 900mm
- ii) Radius 450mm, 600mm, 1000mm, 1500mm, 2000mm

'X' - CROSS BEND LIGHT AND MEDIUM DUTY STRAIGHT FLANGE PERFORATED CABLE TRAYS



'X' Cross Bend Light and Medium Duty Straight Flange

W	H	THK
100mm to 900mm	25mm, 50mm	1.6mm - 2mm

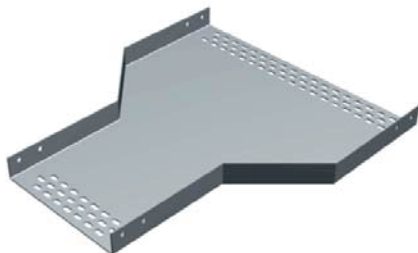
Note : Above size are standard, any size can be offered.

- i) Width from 100mm to 900mm
- ii) Thickness from 1.6mm to 2 mm
- iii) Radius 450mm, 600mm, 1000mm, 1500mm, 2000mm



REDUCER LIGHT AND MEDIUM DUTY STRAIGHT FLANGE PERFORATED CABLE TRAYS

CENTRE REDUCER



SIDE REDUCER



'T' Bend Light and Medium Duty Straight Flange

W	W - 2	H	THK
100mm to 900mm	100mm to 900mm	25mm, 50mm	1.6mm - 2mm

Note : Above size are standard, any size can be offered.

- i) Width from 100mm to 900mm
- ii) Thickness from 1.6mm to 2 mm
- iii) Specify type and thickness of reducer while ordering

COUPLER PLATE FOR LIGHT AND MEDIUM DUTY STRAIGHT FLANGE PERFORATED CABLE TRAYS

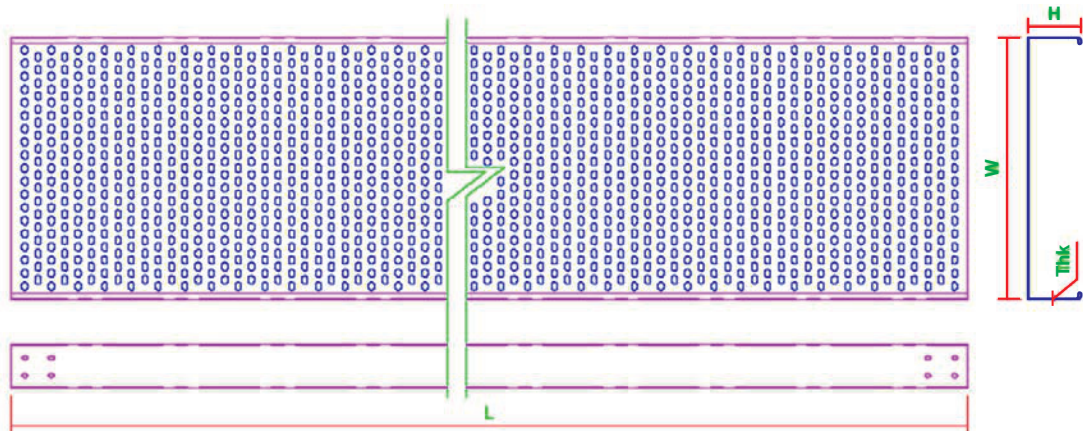
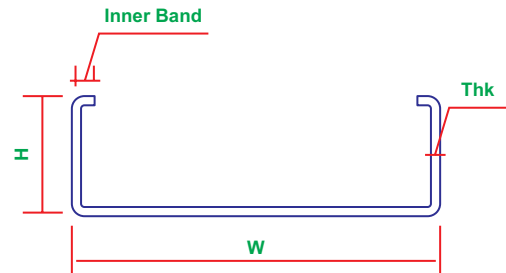
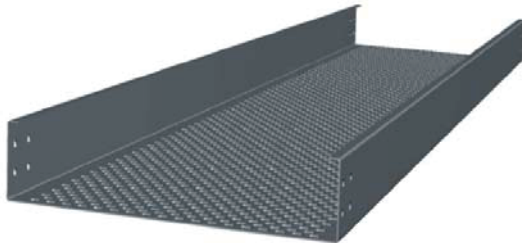


Coupler Plate Light and Medium Duty Straight Flange

W	H	THK
210mm	25mm, 40mm	1.6mm - 2mm



HEAVY DUTY WITH INNER FLANGE PERFORATED CABLE TRAYS



Heavy Duty With Inner Flange

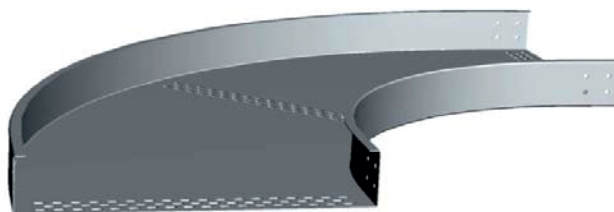
W	INNER BEND	H	THK
100mm to 900mm	15mm	100mm	1.6mm - 2mm

Note : Above size are standard, any size can be offered.

- i) Width from 100mm to 900mm
- ii) Thickness from 1.6mm to 2 mm
- iii) Inner Bend for Extra Strength



90° VERTICAL BEND HEAVY DUTY WITH INNER FLANGE PERFORATED CABLE TRAYS



90° Vertical Bend Heavy Duty with Inner Flange

W	INNER BEND	H	THK
100mm to 900mm	15MM	25mm, 50mm	1.6mm - 2mm

Note : Above size are standard, any size can be offered.

- i) Width from 100mm to 900mm
- ii) Thickness from 1.6mm to 2 mm
- iii) Radius 450mm, 600mm, 1000mm, 1500mm, 2000mm
- iv) Inner Bend for Extra Strength

90° HORIZONTAL BEND HEAVY DUTY WITH INNER FLANGE PERFORATED CABLE TRAYS



90° Horizontal Bend Heavy Duty with Inner Flange

W	INNER BEND	H	THK
100mm to 900mm	15MM	25mm, 50mm	1.6mm - 2mm

Note : Above size are standard, any size can be offered.

- i) Width from 100mm to 900mm
- ii) Thickness from 1.6mm to 2 mm
- iii) Radius 450mm, 600mm, 1000mm, 1500mm, 2000mm
- iv) Inner Bend for Extra Strength



'T' BEND HEAVY DUTY WITH INNER FLANGE PERFORATED CABLE TRAYS



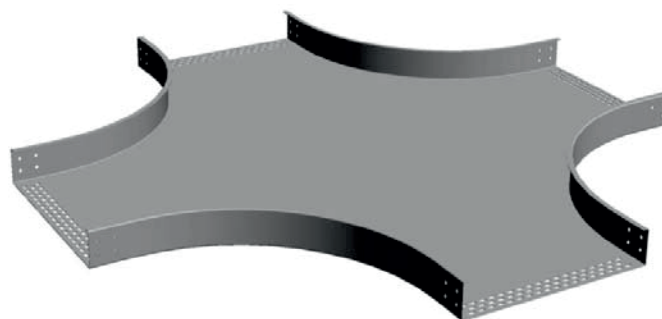
'T' Bend Heavy Duty with Inner Flange

W	INNER BEND	H	THK
100mm to 900mm	15MM	100mm	1.6mm - 2mm

Note : Above size are standard, any size can be offered.

- i) Width from 100mm to 900mm
- ii) Thickness from 1.6mm to 2 mm
- iii) Radius 450mm, 600mm, 1000mm, 1500mm, 2000mm
- iv) Inner Bend for Extra Strength

'X' CROSS BEND HEAVY DUTY WITH INNER FLANGE PERFORATED CABLE TRAYS



'X' Cross Bend Heavy Duty with Inner Flange

W	INNER BEND	H	THK
100mm to 900mm	15MM	100mm	1.6mm - 2mm

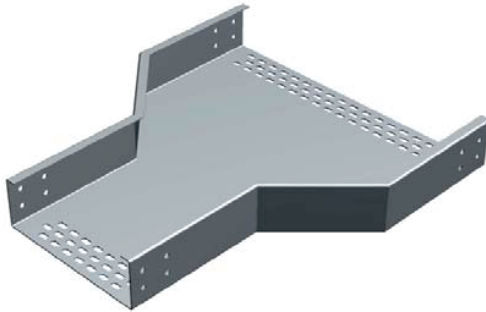
Note : Above size are standard, any size can be offered.

- i) Width from 100mm to 900mm
- ii) Thickness from 1.6mm to 2 mm
- iii) Radius 450mm, 600mm, 1000mm, 1500mm, 2000mm
- iv) Inner Bend for Extra Strength

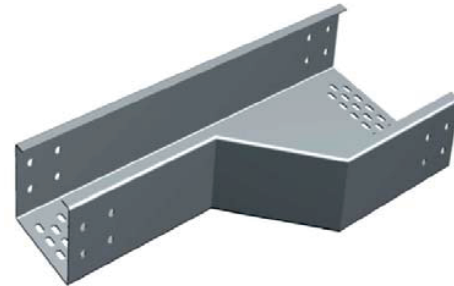


REDUCER HEAVY DUTY WITH INNER FLANGE PERFORATED CABLE TRAYS

CENTRE REDUCER



SIDE REDUCER



Reducer Heavy Duty with Inner Flange

W	W - 2	H	THK
100mm to 900mm	100mm to 900mm	100mm	1.6mm - 2mm

Note : Above size are standard, any size can be offered.

- i) Width from 100mm to 900mm
- ii) Thickness from 1.6mm to 2 mm
- iii) Inner Bend for Extra Strength
- iv) Specify type and thickness of reducer while ordering

COUPLER PLATE FOR HEAVYDUTY WITH INNER FLANGE PERFORATED CABLE TRAYS



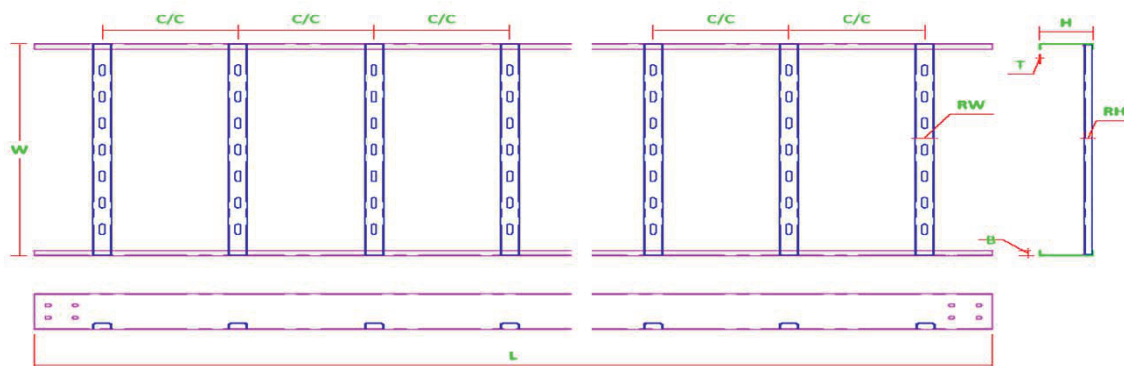
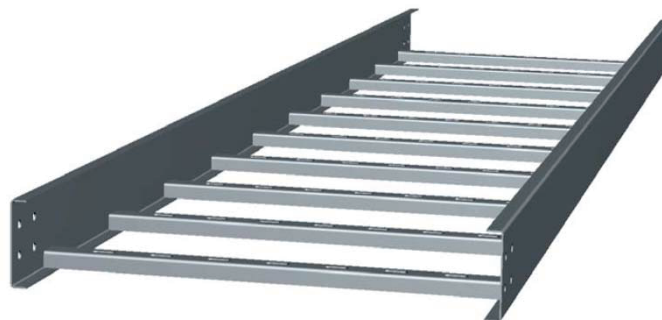
Coupler Plate for Heavy Duty with Inner Flange

W	H	THK
210mm	25mm, 40mm	1.6mm - 2mm

Coupler Plate Supply with M8X20 Bolt, Nut and Plain Washer (Electroplated) - 8Sets per Coupler



LADDERTYPE CABLE TRAY



W	Width of Tray
L	Length of Tray
H	Height of Tray
T	Thickness of Sheet
B	Bend
RH	Rung Height
RW	Rung Width
C/C	Center to Center Distance Between Rung

W	H
100mm to 1000mm	50mm, 75mm, 100mm

Standard Length of Tray 2500mm
 Thickness of Sheet 1.6mm to 3mm
 Above size are standard, any size can be offered.



90° HORIZONTAL BEND FOR LADDER CABLE TRAY



90° Horizontal Bend For Ladder Cable Tray

W	H	THK
100mm to 1000mm	50mm, 75mm, 100mm	1.6mm - 3mm

Note : Above size are standard, any size can be offered.

- i) Width from 100mm to 1000mm
- ii) Thickness from 1.6mm to 3mm
- iii) Radius 450mm, 600mm, 1000mm, 1500mm, 2000mm

90° VERTICAL BEND FOR LADDER CABLE TRAY

INSIDE



OUTSIDE



90° Vertical Bend For Ladder Cable Tray

W	H	THK
100mm to 1000mm	50mm, 75mm, 100mm	1.6mm - 3mm

Note : Above size are standard, any size can be offered.

- i) Width from 100mm to 1000mm
- ii) Thickness from 1.6mm to 3mm
- iii) Radius 450mm, 600mm, 1000mm, 1500mm, 2000mm



'T' BEND LADDER CABLE TRAY



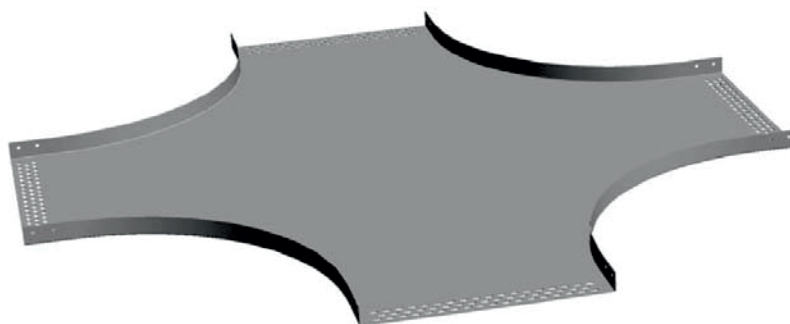
'T' Bend for Ladder Cable Tray

W	H	THK
100mm to 1000mm	50mm, 75mm, 100mm	1.6mm - 3mm

Note : Above size are standard, any size can be offered.

- i) Width from 100mm to 1000mm
- ii) Thickness from 1.6mm to 3mm
- iii) Radius 450mm, 600mm, 1000mm, 1500mm, 2000mm

'X' - CROSS BEND FOR LADDER CABLE TRAY



'X' Cross Bend for Ladder type Cable Tray

W	H	THK
100mm to 900mm	25mm, 50mm	1.6mm - 2mm

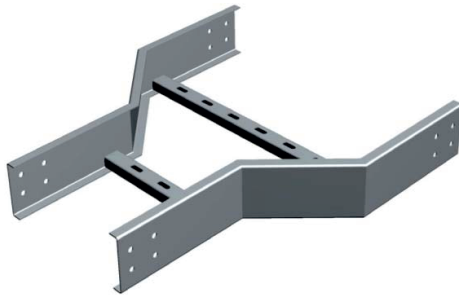
Note : Above size are standard, any size can be offered.

- i) Width from 100mm to 900mm
- ii) Thickness from 1.6mm to 2 mm
- iii) Radius 450mm, 600mm, 1000mm, 1500mm, 2000mm



REDUCER FOR LADDERTYPE CABLE TRAY

CENTRE REDUCER



SIDE REDUCER



Reducer Light and Medium Duty Straight Flange

W	W - 2	H	THK
100mm to 1000mm	100mm to 900mm	25mm, 50mm	1.6mm - 3mm

Note : Above size are standard, any size can be offered.

- i) Width from 100mm to 900mm
- ii) Thickness from 1.6mm to 2 mm
- iii) Specify type and thickness of reducer while ordering
Side Reducer available in Left and Right Position.

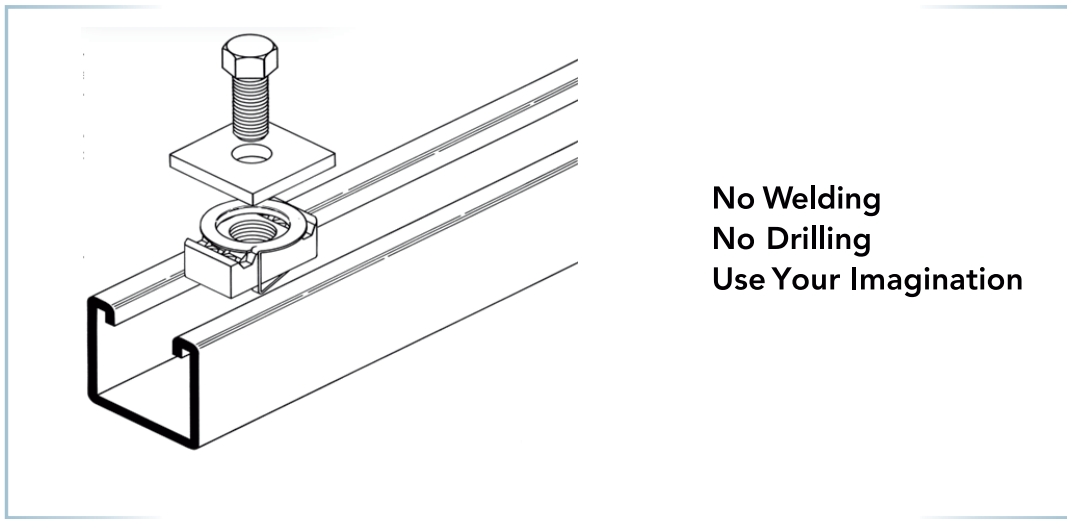
COUPLER PLATE FOR LADDER CABLE TRAY



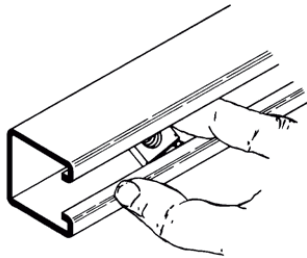
Coupler Plate for Ladder Cable Tray

W	H	THK
210mm	75mm	1.6mm - 3mm

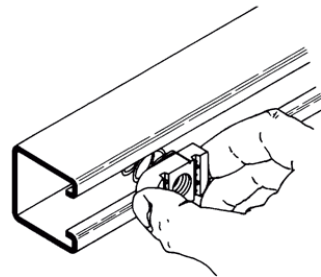
Coupler Plate supply with M8X20 Bolt, Nut and Plain Washer (Electroplated) - 8 Sets per Coupler



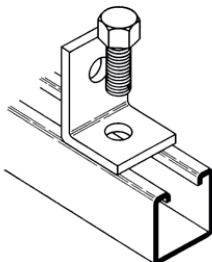
No Welding
No Drilling
Use Your Imagination



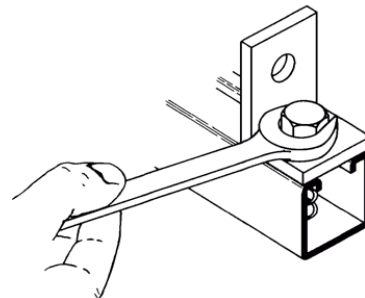
Strut channel nut may be inserted anywhere
Along continuous slot. Designed for easy
insertion and self-alignment.



A 90° turn aligns channel nut grooves with
inturned lips of the channel.



Position fitting over channel nut and insert bolt to start
any connection.



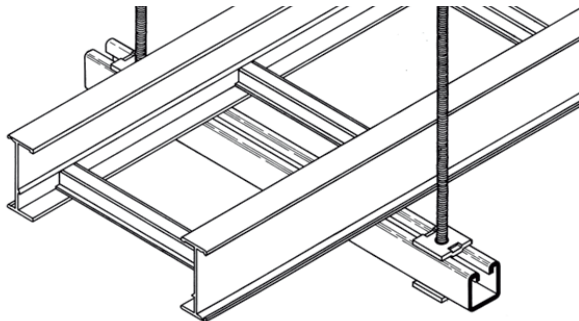
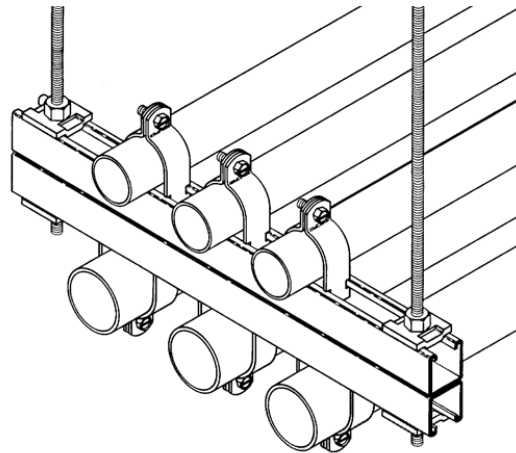
With the twist of a wrench, channel nut locks its teeth
firmly against inturned lips.



Strut Support system provides an economical solution for electrical, mechanical and industrial supports with an unlimited variety of applications in the construction industry.

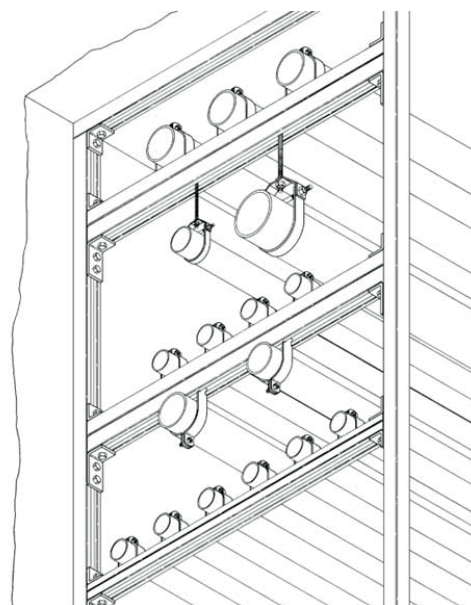
Electrical Application Applications

- Lighting Fixture Supports
- Raceway Systems
- Trapeze Hangers
- Pipe & Conduit Supports
- Cable Tray Supports
- Beam Adjustments



Metal Framing Mechanical Applications

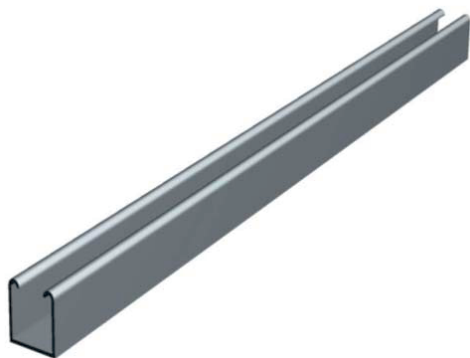
- Piping Racks
- Tunnel Pipe Stanchions
- Concrete Inserts
- Beam Attachments
- Pipe Risers





SUPPORT CHANNEL (STRUT CHANNEL) FOR CABLE TRAY SUPPORT

STRUT CHANNEL



SLOTTED STRUT CHANNEL



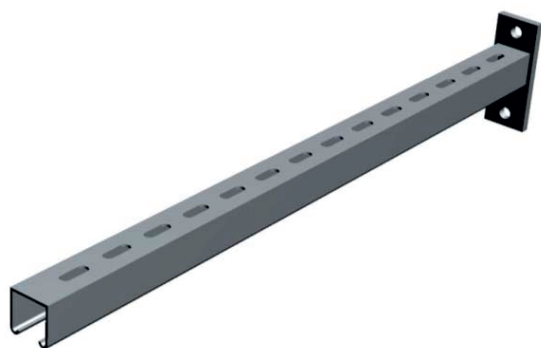
Support Channel (strut Channel) For Cable Tray Support

SIZE	LENGTH	THICKNESS
41 x 41	1000mm To 3000mm	2mm, 2.5MM

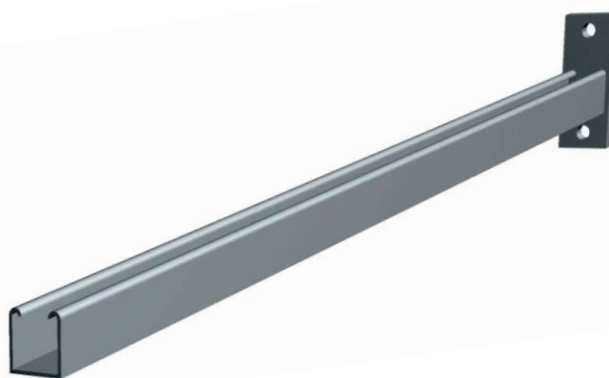
Note : Above size are standard, any size can be offered.

MEDIUM DUTY CANTILEVER SUPPORT CHANNEL (STRUT CHANNEL)

STRUT SLOTTED CANTILEVER

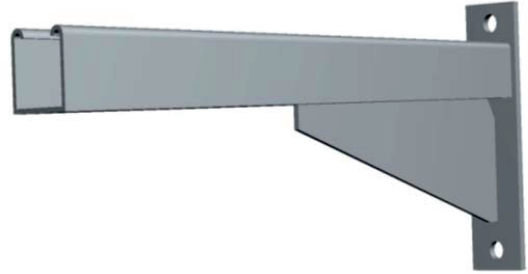
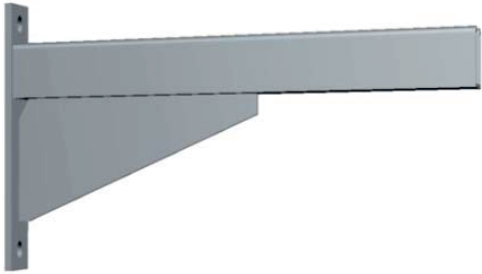


STRUT CANTILEVER





HEAVY DUTY CANTILEVER SUPPORT CHANNEL (STRUT CHANNEL)





USHA ENGINEERS

Cable Tray Manufacturing

EARTHING SOLUTION **:: Introduction Letter ::**

Thank you for the opportunity and privilege to introduce the services offered by Usha Industries., Our primary business line includes :

Manufacturing of earthing electrodes & lightning arrester and undertake total designing. supply and installation (turnkey) work for the same.

An Overview for Earthing/Grounding Protection:

The most important safety system in any building or zone is the one protecting from the hazards of fault current. Earthing/grounding systems have to perform effectively all the time; if a deficiency in the system is unnoticed or unaddressed It may result in damage to equipment operational failure or the death of living beings. construction projects have to address the challenges presented by faulty electrical current. A failure to effectively protect against fault current can have disastrous, even fatal consequences. For this reason it is essential that the scale of the potential hazard is established in advance and then specifically addressed through an effective earthing/grounding design and it is for this reason that prudent companies seek technically sound companies to get support in this provision.

An Overview for Earthing/Grounding Protection:

The spectacle of lightning has inspired awe and fear as long as been life on this planet. Our fascination with lightning is akin to our fascination with potentially dangerous animals or activities. The truth of the matter is that with the exception of floods (which affect entire populated area in a single event) lightning is the biggest weather, linked killer. Whilst lightning may not threaten everyday lightning protection is still essential.

By the above mentioned brief introduction about Earthing and Lightning protection one shall assume the gravity of the products and solutions provided. We have already worked with reputed companies and satisfied them with our quality product and service. Please remember us in your current and upcoming projects. We are a company with expertise and work at very competitive price.

With best regards,

From, Usha Industries



USHA ENGINEERS

Cable Tray Manufacturing

EARTHING SOLUTION

Product Line :

GROUNDING / EARTH PROTECTION

Topic Navigation - Index

- 1 - EARTHING SOLUTION AN OVERVIEW
- 2 - USHA INDUSTRIES MAKE MAINTENANCE , FREE PIPE EARTHING ELECTRODES
- 3 - EARTHING TEST METHODS AND INSTRUMENTS
- 4 - TEST REPORTS
- 5 - APPROVAL & LICENCES
- 6 - USHA INDUSTRIES MAKE MAINTENANCE-FREE SOLID EARTHING RODS



Knowledge of the soil resistivity at the intended site, and how this varies with parameters such as moisture content, temperature and depth, provides an insight into how the desired earth resistance can be achieved and maintained over the life of the installation with minimum cost and effort. Many different factors have a direct effect on the resistivity of the local soil, the resistivity of different types of ground material ranges from $1 W$ to the upwards of over 1,00,000 W. Soil is also a major factor in affecting corrosion rate as soil resistivity decreases, corrosion increases, as soil moisture content increases, resistivity decreases, atmospheric conditions can significantly affect soil resistivity.

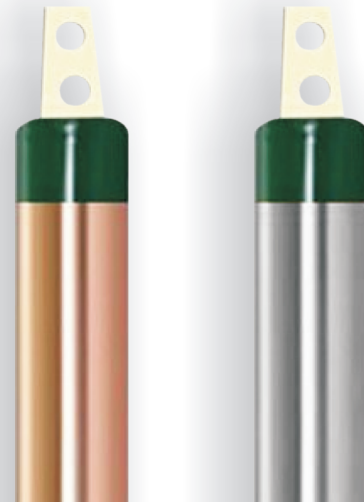
This advanced earthing system works in two folds :

1. The Earth Electrode has a strip pipe concept that involves two low carbon mild steel pipes and one strip inserted inside the pipe. The outer pipe has an anti-rust coating of 250 microns. The pipe and strip both are of Indian specifications 1239 medium class as prescribed by earthing manual of Indian standard 3043 that is 3.6 mm wall thickness. The empty space inside the electrode is pressure-filled with a high-conductive crystalline mixture specially formulated and developed to create a minimum resistive path within the electrode.

2. Ground-improving material is a back-fill compound that is added in the soil around the earth electrode within the sphere of influence of the earthing system. The compound being hygroscopic in nature maintains the moisture level during seasonal imbalances. The compound is also very conductive, hence eliminating the use of salt and charcoal and maintaining the conductive nature of soil, and the compound is also very swelling in nature, thus it eliminates air pockets in the soil and increases the contact area with the electrode.

Keeping all the critical aspects of an earthing / grounding system, we came forward with a revolutionary product.

1. Maintenance-free nature, no need to add water in regular intervals as in conventional systems.
2. Consistency, continuously maintains the same (approx) resistance value over the regardless of soil and climatic conditions.
3. More surface area, the conductive compound inside and around the electrode creates a conductive zone which provides a greater surface area for peak current dissipation.
4. Easy Installation, can be installed indoors or outdoors and in almost any soil condition.
5. Corrosion-resistant, intelligently designed to resist corrosion and give long life.
6. Meets the guidelines as per IS:3043-1987 mandates.



The Usha Industries make Earthing/Grounding Electrodes come in the following dimensions to suit your needs.

Product Code	: DP333CU	DP4823CZ	DP6323CZ	DP7823CZ
Diameter	: 33 mm	48 mm	63 mm	78 mm
Length	: 3 Mtrs.	2 & 3 Mtrs.	2 & 3 Mtrs.	2 & 3 Mtrs.
Wall Thickness	: 3.2 mm	3.2 mm	3.6 mm	3.6 mm
Coating Available	: Copper/GI	Copper/GI	Copper/GI	Copper/GI
Coating Thickness	: Upto 250	Upto 250	Upto 250	Upto 250
Terminal Hole	: 10 mm	10 mm	13 mm	13 mm
Cross Section Area	: 316 mm ²	481 mm ²	616 mm ²	892 mm ²
Lug Size	: 25 x 6 x 100	40 x 6 x 100	50 x 6 x 100	50 x 10 x 100
Current Rating	: 7.5 kA Peak	30 kA Peak	50 kA Peak	75 kA Peak
Application	: Domestic	Comm./Ind.	Industrial	Heavy Ind.



Usha Industries range of compact, aesthetically appealing & elegant distribution boxes with unique user friendly features. Usha Industries Distribution Boxes are specially designed & engineered to provide safety, convenience and simplicity. Usha Industries Distribution Boxes are not only enclosures but a complete system in itself, incorporating switching and safety devices like MCBs, RCCBs, MCCBs & Isolators to give total protection to the living being & electrical installation.

We offer wide variety of distribution boxes with unique features :

- Elegantly designed compact DBs to suit your requirements
- Suitable for surface & flush mounting
- Raised Neutral link for easy wiring
- Detachable din bar with end stoppers for easy assembly of MCBs
- Supplied with fully shielded busbar
- Level marks for providing indication for fitment in wall
- Prominently place earthing screws on either side
- Supplied with Neutral & Earth Link
- Detachable top & bottom gland plates
- Supplied with masking sheet to protect components from cement during plastering

SPN Distribution Box



No. of Way

4 WAY

6 WAY

8 WAY

12 WAY

16 WAY

Horizontal TPN Distribution Box



No. of Way

4 WAY

6 WAY

8 WAY

12 WAY

16 WAY



Vertical TPN Double Door Distribution Box



No. of Way
4 WAY
8 WAY
12 WAY

Junction Box



Double Door Row Distribution Box



No. of Rows
2 ROW
3 ROW
4 ROW

TPN Phase Selector Double Door Distribution Box



No. of Way
4 WAY
6 WAY
8 WAY
12 WAY

7 Segment Phase Segregated TPN Double Door Distribution Box



No. of Way
4 WAY
6 WAY
8 WAY
12 WAY

Plug & Socket Distribution Box



One Way Distribution Box



Type
SP
DP
TP
FP

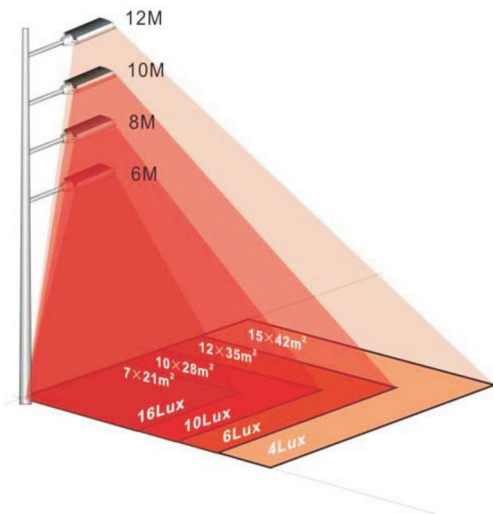




USHA ENGINEERS

Cable Tray Manufacturing

ELECTRICAL BOX SYSTEM



Pioneers in the EPC segment, Usha Industries also specialises in fabrication of standard and customised hot-dip galvanized accessories.

- Polygonal and Conical Poles: Up to 15 meters
- Octagonal Poles: Up to 12 meters

Present day use of street lighting poles is not merely restricted to mundane fixtures for street illumination. The decorative embellishments - like ornamental brackets - are intended to play a dual role: as attractive and eye-catching street furniture by day; and to enhance the aesthetics of basic night illumination.

This range of MS Pipe, Hot-Dip Galvanized Octagonal Poles for Street Lighting with decorative brackets is commonly known all-over as "Usha Industries".

