



# Cable Support System





# Technical Brief

## Cable Management Systems

Cable management system provides support for the insulated electric cables that are used widely for power distribution and communication. They are an alternative to open wiring and commonly used for cable management in commercial and industrial construction projects. This support system is especially useful in situations where changes to a wiring system are anticipated because the cables can be installed by laying them in trays, trunkings or cable ladders.

## Hot Rolled (HR) Steel

HR steel is typically less expensive and produced in thicker gauges of 2.0mm and upwards. HR and CR steel are most likely to corrode and therefore, the least expensive of the three metals most commonly used for perforation. Most grades can be protected against corrosion by post-galvanising (dipping in hot zinc) or various painting treatments.

## Cold Rolled (CR) Steel

CR steel provides tighter tolerance and better surface finishing. While it can be produced in practically any gauge, it is most readily available in thinner gauges ranging from 0.4mm - 3.0mm. This material can also be post-galvanised, painted or epoxy powder coated after the perforation process to provide protection against corrosion.

## Aluminium

Aluminium 1100 alloy is an aluminium-based alloy in the "commercially pure" wrought family (1000 or 1xxx series). With a minimum composition of 99.0% aluminium, it is the most heavily alloyed of the 1000 series. It is also mechanically the strongest alloy in the series and the only 1000-series alloy commonly used in rivets. Despite its strength, it maintains the benefits of being relatively lightly alloyed (compared to other series), therefore it has attributes like high electrical conductivity, corrosion resistance, and workability.

## 304 Stainless Steel

Grade 304 stainless steel has a high resistance to rust, withstands corrosion from most oxidising acids and is often used for kitchen and food applications. However, it is susceptible to corrosion from chloride solutions (notably saline environments with high amount of sodium chloride). Chloride ions can create localised areas of corrosion, called "pitting" which can spread beneath protective chromium barriers to compromise internal structures. Solutions with as little as 25ppm of sodium chloride can begin to have a corrosive effect. 304 stainless steel is the most common form of stainless steel used around the world. It contains between 16 and 24 percent chromium and up to 35 percent nickel - as well as small amount of carbon and manganese.

## 316 Stainless Steel

Grade 316 stainless steel is the second-most common form of stainless steel. It has almost the same physical and mechanical properties as 304 stainless steel and contains similar material make-up. The difference is that 316 stainless steel incorporates about 2 to 3 percent molybdenum, which increases corrosion resistance particularly against chlorides and other industrial solvents. Alternative 300-series grades can contain up to 7 percent molybdenum. 316 stainless steel is commonly used in many industrial applications involving processing chemicals, as well as high-saline environments such as coastal regions and outdoor areas where de-icing salts are common.

## Pre-Galvanised

(mill galvanised, hot dip mill galvanised or continuous hot dip galvanised) Pre-galvanised steel is produced by continuously rolling rolls of sheet steel in molten zinc at the mills. This is also known as mill galvanised or hot dip mill galvanised. These coils are then slit to size and fabricated by methods of roll forming, shearing, punching or forming to produce our pre-galvanised strut products. This coating is generally very thin, therefore during fabrication, any cut edges will be left exposed and any welds will damage the initial coating.

## Electrogalvanised

Electrogalvanised zinc (also known as zinc-plated or electroplated) is the process by which a coat of zinc is deposited on the steel by electrolysis from a bath of zinc salts. When exposed to air and moisture, zinc forms a tough, adherent, protective film consisting of a mixture of zinc oxides, hydroxides, and carbonates. This film forms a barrier coating that slows subsequent corrosive attack on the zinc. This coating is usually recommended for indoor use in relatively dry areas, as it provides ninety-six hours protection in salt spray testing as per ASTM B117.

## Hot Dip Galvanised After Fabrication

Hot Dip galvanised strut products are fabricated from steel and then completely immersed in a bath of molten zinc. The metallic bond results in a zinc coating that completely coats all surfaces, including all edges and welds. The metallurgically-bonded zinc-alloy layers not only create a barrier between the steel and the environment, but also cathodically protect the steel. This cathodic protection offered by zinc means the galvanised coating sacrifices itself to protect the underlying base steel from corrosion. Hot dip galvanising after fabrication is highly recommended for prolonged outdoor exposure as this method of corrosion protection lasts more than 20 years in most atmospheric and industrial environments.

## Epoxy Powder Coating

Powder coating is a type of coating that is applied as a free-flowing, dry powder. The main difference between conventional liquid paint and powder coating is that the powder coating does not require a solvent to keep the binder and filler parts in a liquid suspension form. The coating is typically applied electrostatically and then cured under heat to allow it to flow and form a "skin". It is usually used to create a hard finish that is tougher than conventional paint.



## Projects

2 MALAN ROAD (MOE)

7-11 OUTLETS (SINGAPORE)

21 CAVAN ROAD

70 SHENTON WAY

59 JALAN PEMIMPIN

FUSIONOPOLIS

CANBERRA CONDO SEMBAWANG

LOR CHUAN NEW TECH PARK

PAYA LEBAR QUARTER 1

1 INTERNATIONAL PARK THE SYNERGY

BLK 30 GHIM MOH CHILDCARE (HDB)

222 SUMANG LANE MULTI STOREY CAR PARK (HDB)

326 SUMANG WALK MULTI STOREY CAR PARK (HDB)

164 GUL CIRCLE (JTC)

PARC ESTA CONDOMINIUM

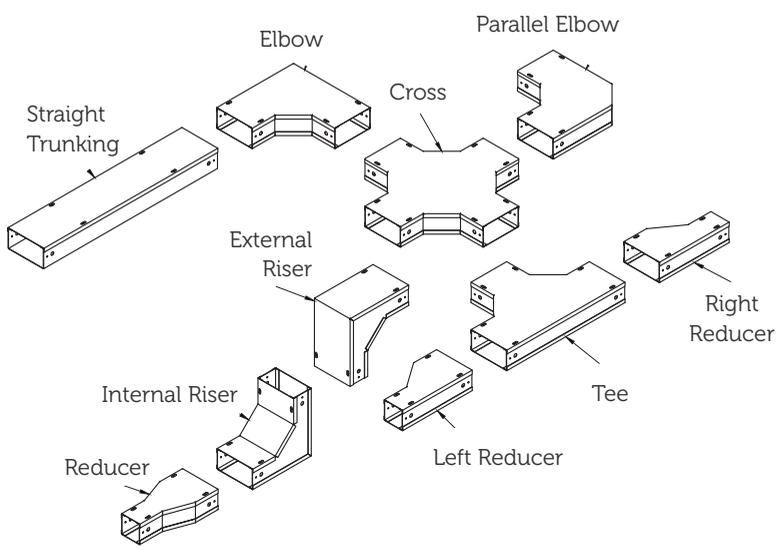
SKY EVERTON CONDOMINIUM

DEFU INDUSTRIAL CITY (JTC)

PUBLIC TRANSPORT SECURITY COMMAND (MHA)

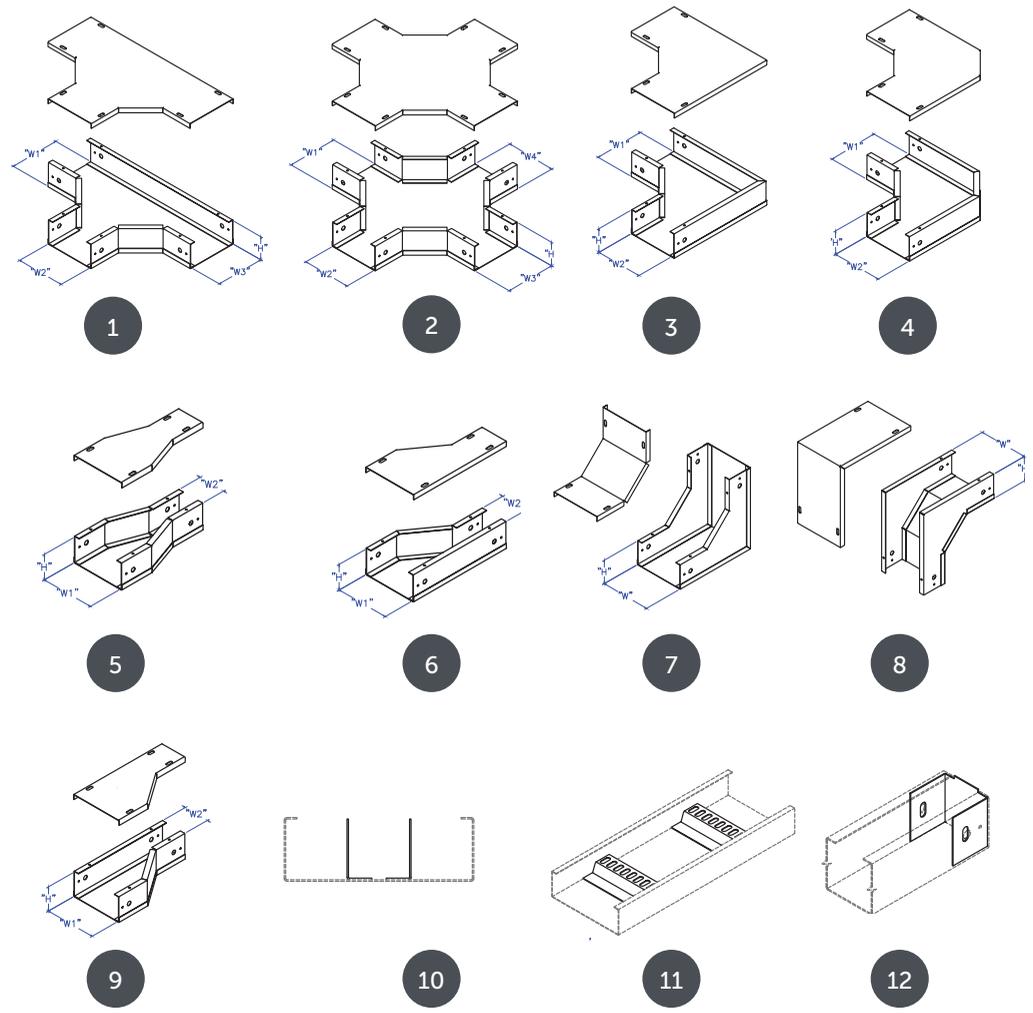


# Cable Trunking System

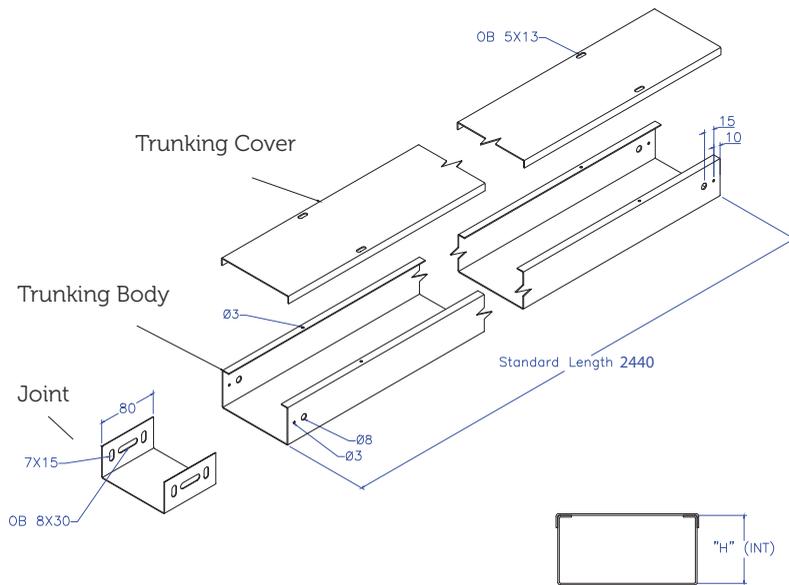


## Cable Trunking Fittings

1. Flatwise Tee
2. Flatwise Cross
3. Flatwise 90 Deg Elbow
4. 90 Deg Parallel Elbow
5. Reducer
6. Right Side Reducer
7. Internal Riser
8. External Riser
9. Left Side Reducer
10. Multi-Compartment Cable Trunking
11. Inner Bracket on Trunking Base
12. End Plate for Cable Trunking

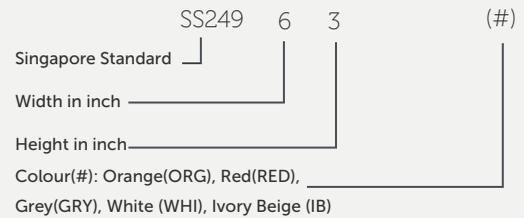


# SINGAPORE STANDARD Cable Trunking



(All Dimensions in mm)

## CCM Product Code System



**Manufacture:** SS249 Class 1 to TUV SUD  
PSB Singapore

**Material:** Electro-galvanized

**Finish:** Epoxy powder coated to a minimum of 50 micron

**Standard Colour:** White(WHI), Orange(ORG), Grey(GRY), Red(RED) and Ivory Beige(IB)

**Standard Length:** 2440 MM

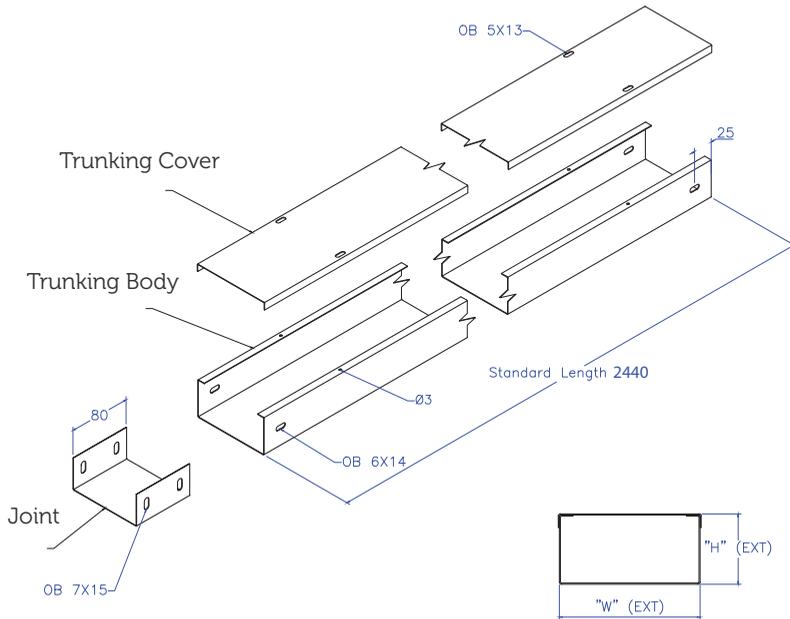
**Complete With:** Joint, Tapping Screw, Bolt & Nuts, Copper link

## Singapore Standard Size, Body and Cover Thickness

Product Code	Normal Size W X H (mm)	Steel Thickness (mm)		Approx Weight Kgs Per Length
		Body	Cover	
SS249 021	50 X 25	1.0	1.0	3.7
SS249 022	50 X 50	1.0	1.0	4.9
SS249 032	75 X 50	1.2	1.2	7.0
SS249 042	100 X 50	1.2	1.2	8.3
SS249 043	100 X 75	1.2	1.2	9.4
SS249 044	100 X 100	1.4	1.2	11.3
SS249 052	125 X 50	1.4	1.2	9.9
SS249 062	150 X 50	1.4	1.2	11.1
SS249 063	150 X 75	1.4	1.2	12.5
SS249 064	150 X 100	1.4	1.2	13.8
SS249 066	150 X 150	1.4	1.2	16.5
SS249 072	175 X 50	1.4	1.2	12.4
SS249 082	200 X 50	1.6	1.4	15.7
SS249 083	200 X 75	1.6	1.4	17.2
SS249 084	200 X 100	1.6	1.4	18.8
SS249 086	200 X 150	1.6	1.4	21.8
SS249 092	225 X 50	1.6	1.4	17.1
SS249 102	250 X 50	1.6	1.4	18.6
SS249 112	275 X 50	1.6	1.4	20.0
SS249 122	300 X 50	1.6	1.6	22.8
SS249 123	300 X 75	1.6	1.6	24.3
SS249 124	300 X 100	1.6	1.6	26.2
SS249 126	300 X 150	1.6	1.6	29.1
SS249 142	350 X 50	1.6	1.6	25.9
SS249 153	375 X 75	1.6	1.6	28.9

Please consult our sales representatives for other sizes, lengths and colours.

# CABLE TRUNKING FOR Indoor Use



## CCM Product Code System

**MT-022-06-1-RED**

Metal Trunking

Dimension (inch)

0.6, 0.8, 1.0, 1.2 & etc  
Thickness (mm)

Finishes & Material:

1. Cold rolled steel
2. Hot dip galvanised steel
3. Stainless steel
4. Galvanised iron
5. Aluminum

Colour:

- WHI - White
- ORG - Orange
- RED - Red
- IB - Ivory Beige
- GRY - Grey

Example:

Order a red cable trunking size of 50x50mm, thickness 0.6mm in cold rolled steel material.  
Product no.  
MT-022-06-1-RED

**Manufacture:** MS 1EC 61084, BS EN 50085

**Standard Length:** 2440mm

**Complete With:** Joint, Tapping Screw, Bolt & Nuts, Copper link

## Recommended Materials And Types Of Finishing

### Materials

Cold Rolled Steel JIS G3141 SPCC  
Galvanized Iron JIS G3302 SGCC

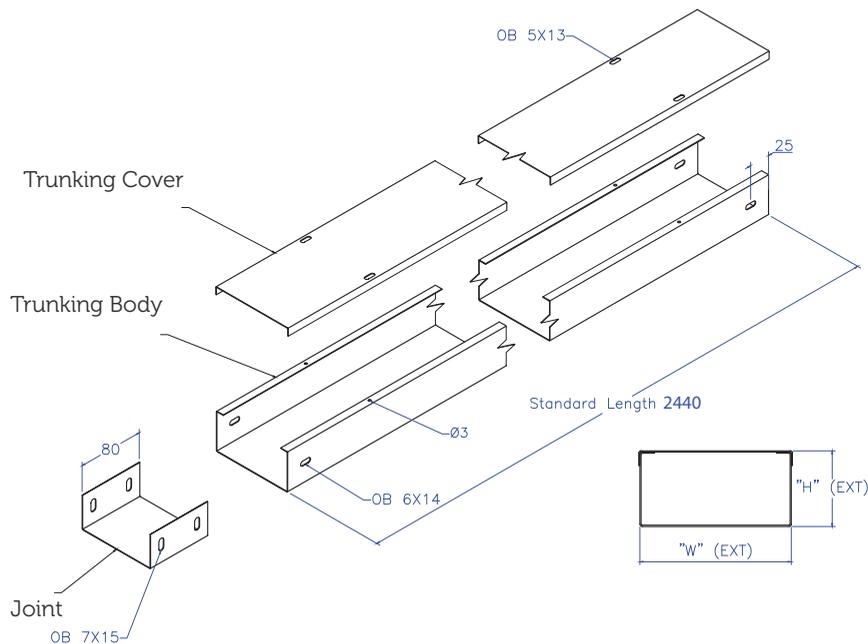
### Types of Finishing

Epoxy Powder Coated to ASTM B117  
Original Finish

Product Code	Normal Size W X H (mm)	Steel Thickness (mm)
MT-021-**	50 X 25	0.6, 0.8, 1.0, 1.2, 1.4, 1.5, 1.6
MT-022-**	50 X 50	0.6, 0.8, 1.0, 1.2, 1.4, 1.5, 1.6, 2.0
MT-032-**	75 X 50	0.6, 0.8, 1.0, 1.2, 1.4, 1.5, 1.6, 2.0
MT-033-**	75 X 75	0.6, 0.8, 1.0, 1.2, 1.4, 1.5, 1.6, 2.0
MT-042-**	100 X 50	0.6, 0.8, 1.0, 1.2, 1.4, 1.5, 1.6, 2.0
MT-043-**	100 X 75	0.6, 0.8, 1.0, 1.2, 1.4, 1.5, 1.6, 2.0
MT-044-**	100 X 100	0.6, 0.8, 1.0, 1.2, 1.4, 1.5, 1.6, 2.0
MT-062-**	150 X 50	0.8, 1.0, 1.2, 1.4, 1.5, 1.6, 2.0
MT-063-**	150 X 75	0.8, 1.0, 1.2, 1.4, 1.5, 1.6, 2.0
MT-064-**	150 X 100	0.8, 1.0, 1.2, 1.4, 1.5, 1.6, 2.0
MT-082-**	200 X 50	0.8, 1.0, 1.2, 1.4, 1.5, 1.6, 2.0
MT-083-**	200 X 75	0.8, 1.0, 1.2, 1.4, 1.5, 1.6, 2.0
MT-084-**	200 X 100	0.8, 1.0, 1.2, 1.4, 1.5, 1.6, 2.0
MT-086-**	200 X 150	0.8, 1.0, 1.2, 1.4, 1.5, 1.6, 2.0
MT-102-**	250 X 50	1.0, 1.2, 1.4, 1.5, 1.6, 2.0
MT-104-**	250 X 100	1.0, 1.2, 1.4, 1.5, 1.6, 2.0
MT-106-**	250 X 150	1.0, 1.2, 1.4, 1.5, 1.6, 2.0
MT-122-**	300 X 50	1.0, 1.2, 1.4, 1.5, 1.6, 2.0
MT-124-**	300 X 100	1.0, 1.2, 1.4, 1.5, 1.6, 2.0
MT-126-**	300 X 150	1.0, 1.2, 1.4, 1.5, 1.6, 2.0

Please consult our sales representatives for other sizes, thickness and colours

# CABLE TRUNKING FOR Outdoor Use



**Manufacture:** MS 1EC 61084, BS EN 50085

**Standard Length:** 2440mm

**Complete With:** Joint, Tapping Screw, Bolt & Nuts, Copper link

## Recommended Materials and Types of Finishing

### Materials

Cold Rolled Steel JIS G3141 SPCC  
Stainless Steel AISI 304, 316 or 316L(SS)  
Aluminium A1100(AL)

### Types of Finishing

Hot-Dip Galvanized to BS EN ISO1461: 1999 (HDG)  
Original Finish  
Original Finish

Product Code	W x H		Steel Thickness (mm)	
	(mm)	(Inches)	HDG	SS/AL
MT-021-**	50 X 25	2 X 1	1,0, 1,2, 1,4, 1,5, 1,6	0,8, 1,0, 1,2, 1,5
MT-022	50 X 50	2 X 2	1,0, 1,2, 1,4, 1,5, 1,6, 2,0	0,8, 1,0, 1,2, 1,5, 2,0
MT-032	75 X 50	3 X 2	1,0, 1,2, 1,4, 1,5, 1,6, 2,0	0,8, 1,0, 1,2, 1,5, 2,0
MT-033	75 X 75	3 X 3	1,0, 1,2, 1,4, 1,5, 1,6, 2,0	0,8, 1,0, 1,2, 1,5, 2,0
MT-042	100 X 50	4 X 2	1,0, 1,2, 1,4, 1,5, 1,6, 2,0	0,8, 1,0, 1,2, 1,5, 2,0
MT-043	100 X 75	4 X 3	1,0, 1,2, 1,4, 1,5, 1,6, 2,0	0,8, 1,0, 1,2, 1,5, 2,0
MT-044	100 X 100	4 X 4	1,0, 1,2, 1,4, 1,5, 1,6, 2,0	0,8, 1,0, 1,2, 1,5, 2,0
MT-062	150 X 50	6 X 2	1,0, 1,2, 1,4, 1,5, 1,6, 2,0	0,8, 1,0, 1,2, 1,5, 2,0
MT-063	150 X 75	6 X 3	1,0, 1,2, 1,4, 1,5, 1,6, 2,0	0,8, 1,0, 1,2, 1,5, 2,0
MT-064	150 X 100	6 X 4	1,0, 1,2, 1,4, 1,5, 1,6, 2,0	0,8, 1,0, 1,2, 1,5, 2,0
MT-082	200 X 50	8 X 2	1,2, 1,4, 1,5, 1,6, 2,0	1,0, 1,2, 1,5, 2,0
MT-083	200 X 75	8 X 3	1,2, 1,4, 1,5, 1,6, 2,0	1,0, 1,2, 1,5, 2,0
MT-084	200 X 100	8 X 4	1,2, 1,4, 1,5, 1,6, 2,0	1,0, 1,2, 1,5, 2,0
MT-086	200 X 150	8 X 6	1,2, 1,4, 1,5, 1,6, 2,0	1,0, 1,2, 1,5, 2,0
MT-102	250 X 50	10 X 2	1,2, 1,4, 1,5, 1,6, 2,0	1,0, 1,2, 1,5, 2,0
MT-104	250 X 100	10 X 4	1,2, 1,4, 1,5, 1,6, 2,0	1,0, 1,2, 1,5, 2,0
MT-106	250 X 150	10 X 6	1,2, 1,4, 1,5, 1,6, 2,0	1,0, 1,2, 1,5, 2,0
MT-122	300 X 50	12 X 2	1,2, 1,4, 1,5, 1,6, 2,0	1,0, 1,2, 1,5, 2,0
MT-124	300 X 100	12 X 4	1,2, 1,4, 1,5, 1,6, 2,0	1,0, 1,2, 1,5, 2,0
MT-126	300 X 150	12 X 6	1,4, 1,5, 1,6, 2,0	1,0, 1,2, 1,5, 2,0

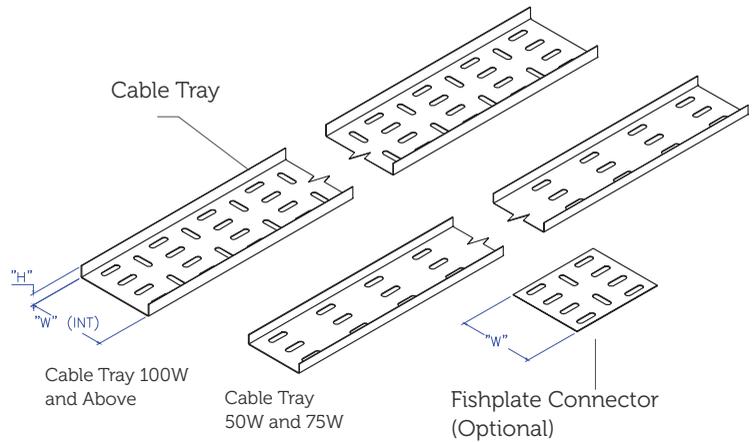
Please consult our sales representatives for other sizes, lengths and colours.

# Standard Straight Edge Perforated Cable Tray

**Manufacture:** MS IEC 61537, NEMA VE1

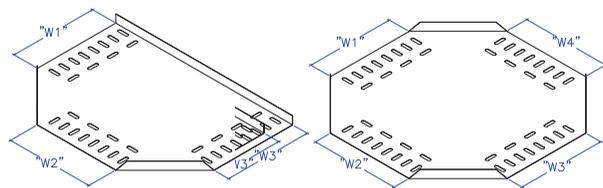
**Standard Length:** 2440mm

**Complete With:** Fishplate, Bolt & Nut, Copper Link



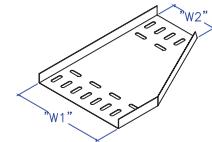
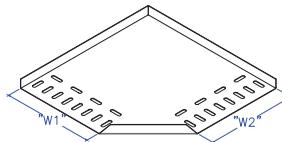
## Standard Perforated Cable Tray Fitting

1. Flatwise Tee
2. Flatwise Cross
3. Flatwise 90 Deg Elbow
4. Left Side Reducer
5. Reducer
6. Right Side Reducer
7. Internal Riser
8. External Riser
9. Parallel 90 Deg Elbow



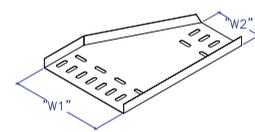
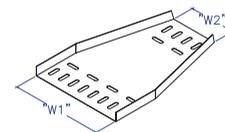
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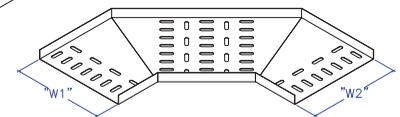
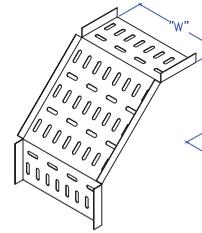
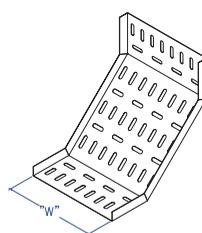
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5

6



7

8

9

# STANDARD PERFORATED Cable Tray Sizes

## Recommended Materials And Type Of Finishing

Materials	Type of Finishing	Recommended Use
Cold Rolled Steel JIS G3141 SPCC	Epoxy Powder Coated to ASTM B117	Indoor
Galvanised Iron JIS G3302 SGCC	Original Finish	Indoor
Cold Rolled Steel G3141 SPCC	Hot-Dip Galvanised to BS EN ISO1461:1999 (HDG)	Outdoor
Stainless Steel AISI 304,316 or 316L (SS)	Original Finish	Outdoor
Aluminium A1100 (AL)	Original Finish	Outdoor

Product Code	Width (mm)	Thickness							Flange Height (Mm)
		0.8mm	1.0mm	1.2mm	1.4mm*	1.5mm	1.6mm*	2.0mm	
CT-02	50	*	*	*	*	*	*	*	12
CT-03	75	*	*	*	*	*	*	*	12
CT-04	100	*	*	*	*	*	*	*	15
CT-06	150	*	*	*	*	*	*	*	15
CT-08	200	*	*	*	*	*	*	*	20
CT-10	250	*	*	*	*	*	*	*	20
CT-12	300	*	*	*	*	*	*	*	25
CT-14	350	*	*	*	*	*	*	*	25
CT-16	400	*	*	*	*	*	*	*	25
CT-18	450	*	*	*	*	*	*	*	25
CT-20	500	*	*	*	*	*	*	*	25
CT-22	550	*	*	*	*	*	*	*	25
CT-24	600	*	*	*	*	*	*	*	30
CT-30	750	*	*	*	*	*	*	*	30
CT-32	800	*	*	*	*	*	*	*	30
CT-36	900	*	*	*	*	*	*	*	30
CT-40	1000	*	*	*	*	*	*	*	30

\*Indication of the gauge of material

(\* For Epoxy Powder Coated Cable Tray)

Product Code	Width (mm)	Thickness						Flange Height (Mm)
		1.0mm	1.2mm	1.4mm*	1.5mm	1.6mm*	2.0mm	
CT-02	50	*	*	*	*	*	*	12
CT-03	75	*	*	*	*	*	*	12
CT-04	100	*	*	*	*	*	*	15
CT-06	150	*	*	*	*	*	*	15
CT-08	200	*	*	*	*	*	*	20
CT-10	250	*	*	*	*	*	*	20
CT-12	300	*	*	*	*	*	*	25
CT-14	350	*	*	*	*	*	*	25
CT-16	400	*	*	*	*	*	*	25
CT-18	450	*	*	*	*	*	*	25
CT-20	500	*	*	*	*	*	*	25
CT-22	550	*	*	*	*	*	*	25
CT-24	600	*	*	*	*	*	*	30
CT-30	750	*	*	*	*	*	*	30
CT-32	800	*	*	*	*	*	*	30
CT-36	900	*	*	*	*	*	*	30
CT-40	1000	*	*	*	*	*	*	30

\*Indication of the gauge of material

Other requirement upon request.

# TROUGH TYPE Perforated Cable Tray

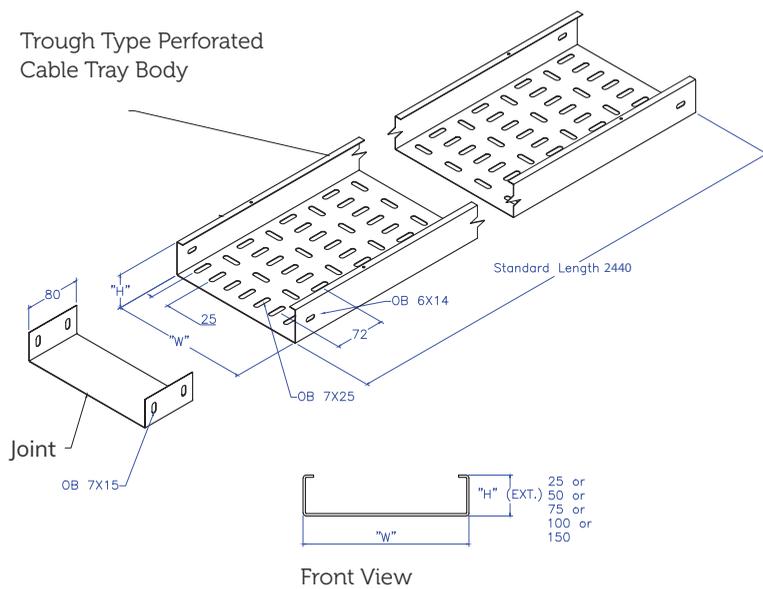


**Manufacture:** MS 1EC 61537, NEMA VE1

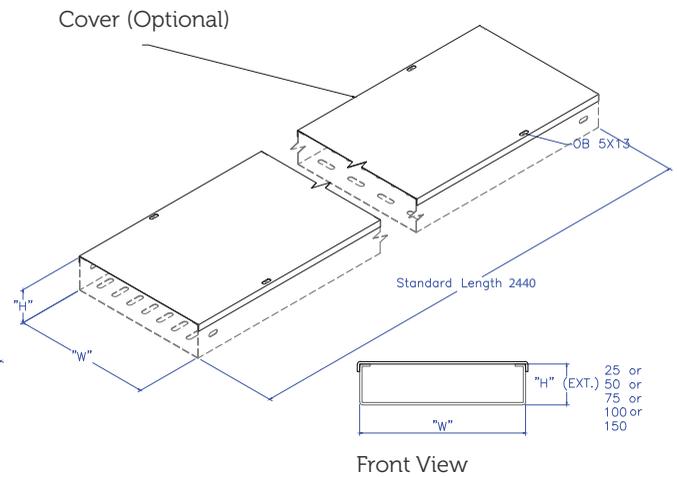
**Standard Length:** 2440mm

**Complete With:** Joint, Tapping Screw, Bolt & Nuts, Copper links (Optional)

## Trough Type Cable Tray



## Trough Type Cable Tray With Cover



Product Code	Standard Size Width (mm)	Gauge / Thickness (mm)
TCT-06	150	1.0 - 2.0
TCT-08	200	1.0 - 2.0
TCT-12	300	1.2 - 2.0
TCT-16	400	1.5 - 2.0
TCT-24	600	1.5 - 2.0
TCT-32	800	2.0
TCT-60	1000	2.0

Other requirements available upon request.

## Recommended Materials and Types of Finishing

### Materials

Cold Rolled Steel JIS G3141 SPCC  
Galvanized Iron JIS G3302 SGCC  
Cold Rolled Steel G3141 SPCC  
Stainless Steel AISI 304, 316 or 316L (SS)  
Aluminium A1100 (AL)

### Types of Finishing

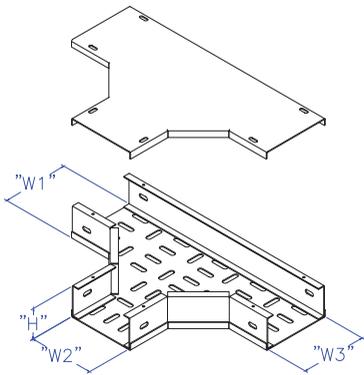
Epoxy Powder Coated to ASTM B117  
Original Finish  
Hot-Dip Galvanised to BS EN 1501461:1999 (HDG)  
Original Finish  
Original Finish

### Recommended Use

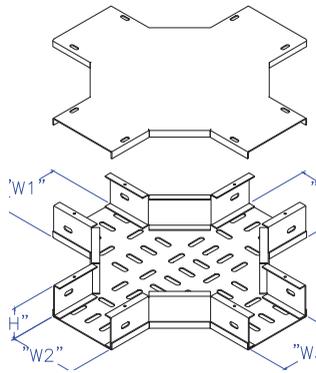
Indoor  
Indoor  
Outdoor  
Outdoor  
Outdoor

Please consult our sales representatives for other sizes, lengths and colours.

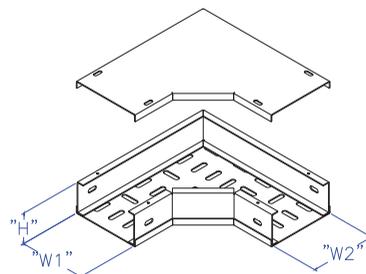
# Trough Type Perforated Cable Tray Fitting



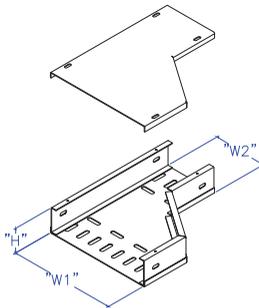
Flatwise Tee



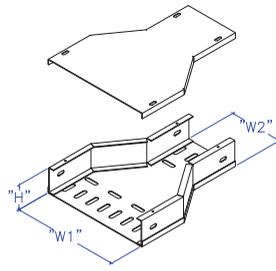
Flatwise Cross



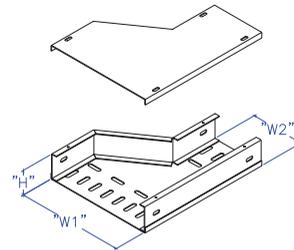
Flatwise 90 Deg  
Elbow



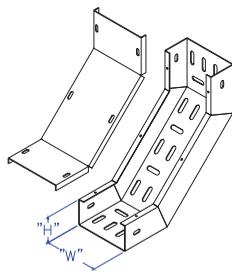
Left Side Reducer



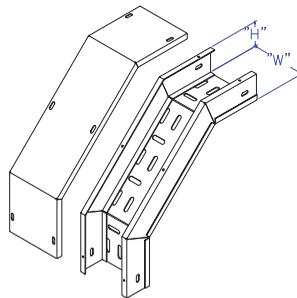
Reducer



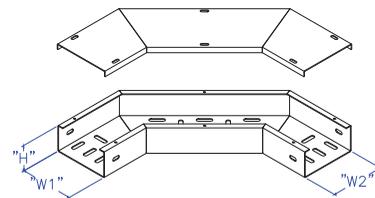
Right Side Reducer



Internal Riser



External Riser



90 Deg Parallel

Note: Cover Optional

# Return Flange

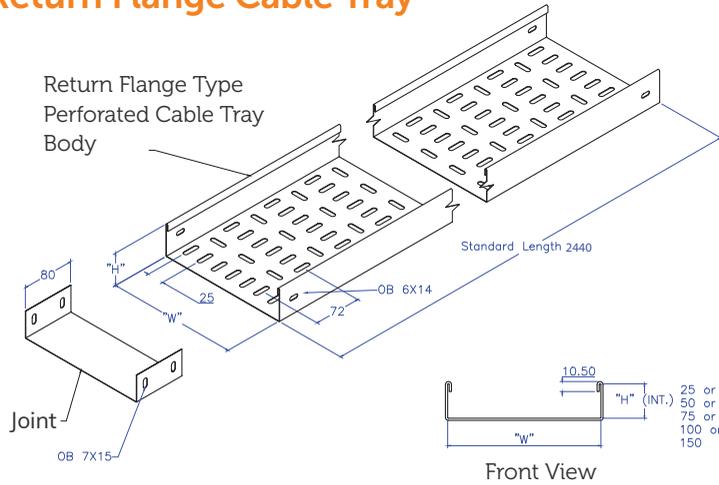
## Perforated Cable Tray

**Manufacture:** MS 1EC 61537, NEMA VE1

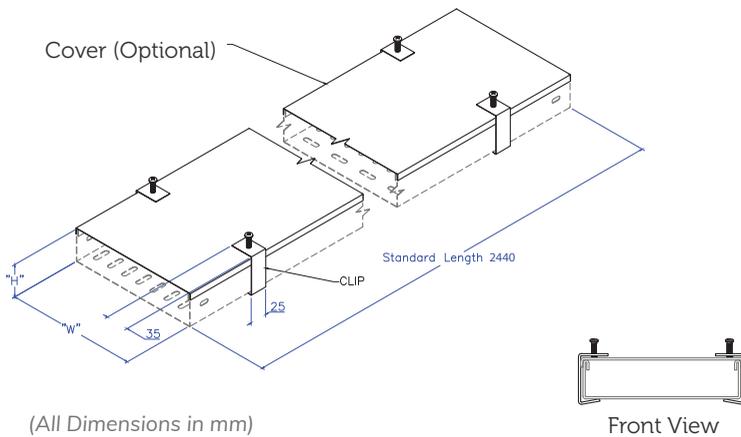
**Standard Length:** 2440mm (please Specify if others)

**Complete With:** Joint, Tapping Screw, Bolt & Nuts, Copper links (Optional)

### Return Flange Cable Tray



### Return Flange Cable Tray With Cover



Product Code	Standard Size Width (mm)	Gauge / Thickness (mm)
RFCT-06	150	1.0 - 2.0
RFCT-08	200	1.0 - 2.0
RFCT-12	300	1.2 - 2.0
RFCT-16	400	1.5 - 2.0
RFCT-24	600	1.5 - 2.0
RFCT-36	800	2.0
RFCT-40	1000	2.0

Other requirements available upon request.

## Recommended Materials and Types of Finishing

### Materials

- Cold Rolled Steel JIS G3141 SPCC
- Galvanized Iron JIS G3302 SGCC
- Cold Rolled Steel G3141 SPCC
- Stainless Steel AISI 304, 316 or 316L (SS)
- Aluminium A1100 (AL)

### Types of Finishing

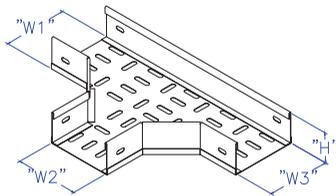
- Epoxy Powder Coated to ASTM B117
- Original Finish
- Hot-Dip Galvanised to BS EN 1501461:1999 (HDG)
- Original Finish
- Original Finish

### Recommended Use

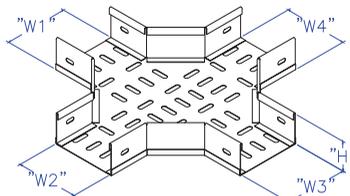
- Indoor
- Indoor
- Outdoor
- Outdoor
- Outdoor

# Return Flange Type

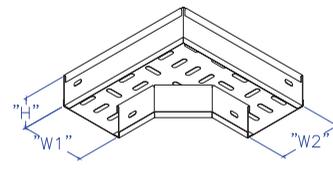
## Perforated Cable Tray Fitting



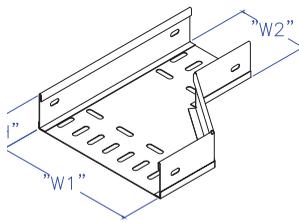
Flatwise Tee



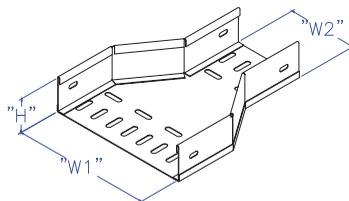
Flatwise Cross



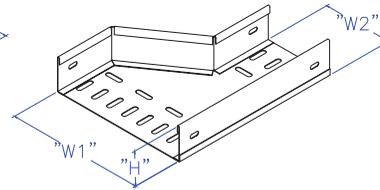
Flatwise 90 Deg  
Elbow



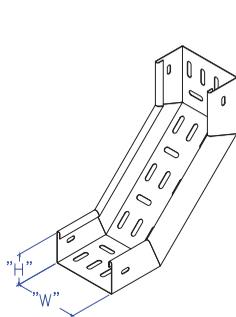
Left Side Reducer



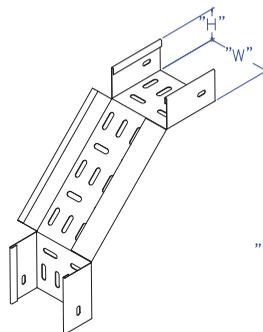
Reducer



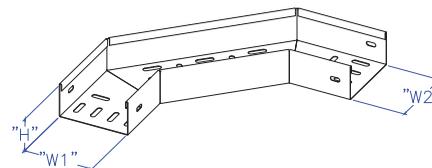
Right Side Reducer



Internal Riser



External Riser



90 Deg Parallel Elbow

Note: Cover with clips are optional

# Knock Down Type Cable Ladder

**Manufacture:** MS 1EC 61537, NEMA VE1

**Standard Length:** 2440mm / 3000mm

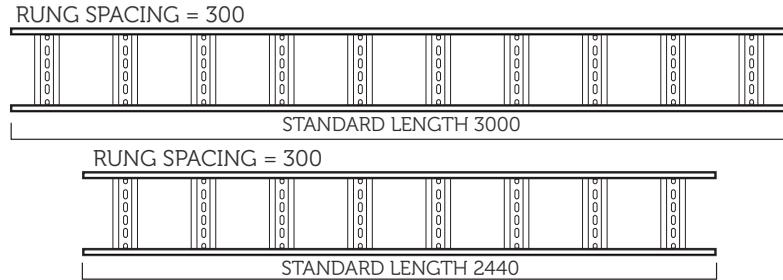
**Complete With:** Joint, Tapping Screw, Bolt & Nuts, Copper links (Optional)

**Standard Thickness:** 2.0mm (side rail) & 1.5mm (Rung)

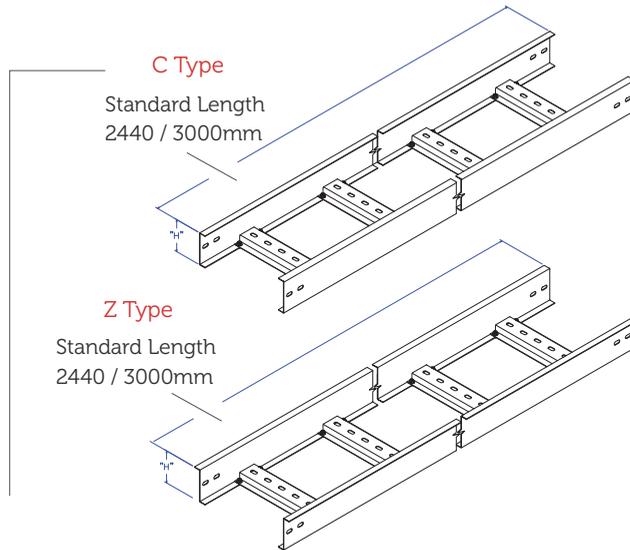
**Standard Height:** 100mm



## Cable Ladder

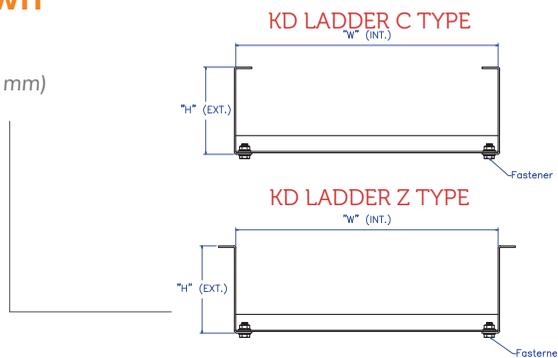


## Cable Ladder Top View



## Rung For Knock Down Ladder

(All Dimensions in mm)



Product Code	Standard Width (mm)	Inches
KDL-06	150	6
KDL-12	300	12
KDL-18	450	18
KDL-24	600	24
KDL-30	750	30
KDL-36	900	36
KDL-40	1000	40
KDL-48	1200	48

Other requirements available upon request.

## Recommended Materials and Types of Finishing

### Materials

Cold Rolled Steel JIS G3141 SPCC  
 Electroplated Zinc Coated JIS G3313 SECC  
 Cold Rolled Steel G3141 SPCC  
 Stainless Steel AISI 304, 316 or 316L (SS)  
 Aluminium A1100 (AL)

### Types of Finishing

Epoxy Powder Coated to ASTM B117  
 Epoxy Powder Coated to ASTM B117  
 Hot-Dip Galvanised to BS EN ISO1461:1999 (HDG)  
 Original Finish  
 Original Finish

### Recommended Use

Indoor  
 Indoor  
 Outdoor  
 Outdoor  
 Outdoor

# Welded Type Cable Ladder



**Manufacture:** MS 1EC 61537, NEMA VE1

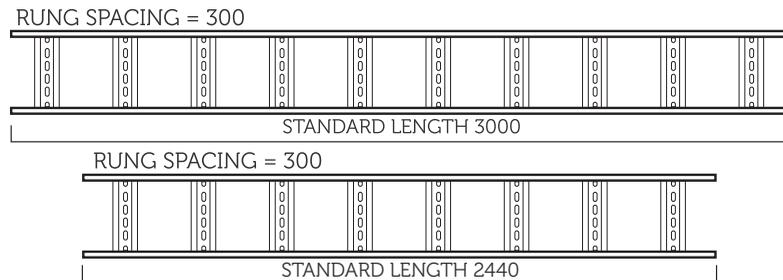
**Standard Length:** 2440mm / 3000mm

**Complete With:** Joint, Tapping Screw, Bolt & Nuts, Copper links (Optional)

**Standard Thickness:** 2.0mm (side rail) & 1.5mm (rung)

**Standard Height:** 100mm

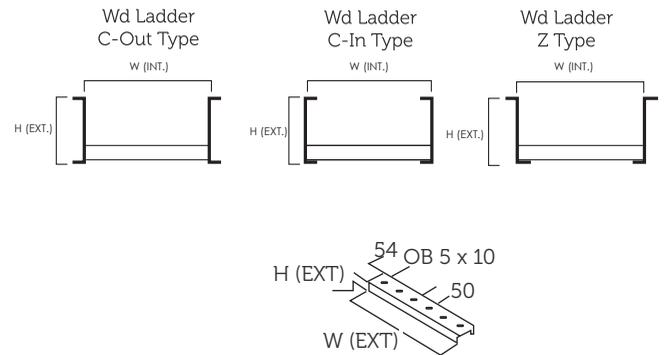
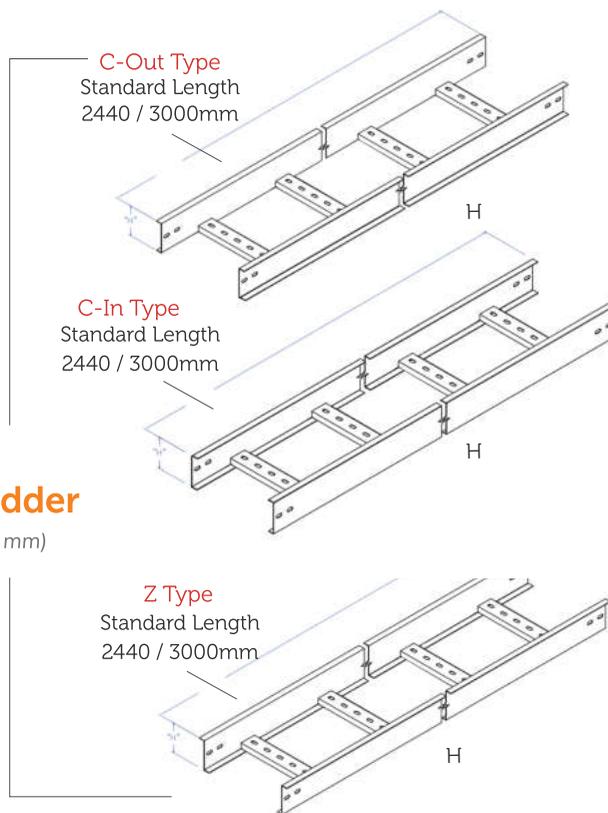
## Cable Ladder



## Cable Ladder Top View

## Rung For Welded Ladder

(All Dimensions in mm)



Product Code	Standard Width (mm)	Inches
WDL-06	150	6
WDL-12	300	12
WDL-18	450	18
WDL-24	600	24
WDL-30	750	30
WDL-36	900	36
WDL-40	1000	40
WDL-48	1200	48

Other requirements available upon request.

## Recommended Materials and Types of Finishing

### Materials

Cold Rolled Steel JIS G3141 SPCC  
Hot Rolled Steel JIS G3131 SPHC  
Stainless Steel AISI 304, 316 or 316L (SS)

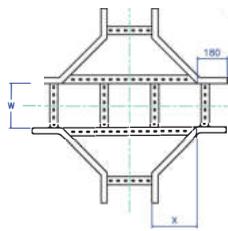
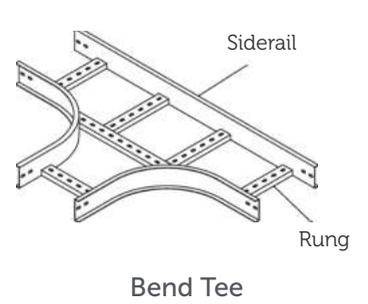
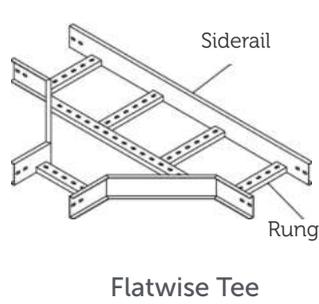
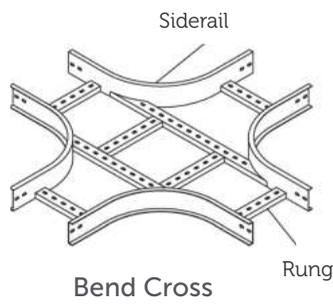
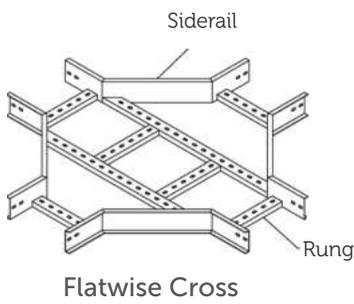
### Types of Finishing

Epoxy Powder Coated to ASTM B117  
Hot-Dip Galvanised to BS EN ISO1461:1999 (HDG)  
Original Finish

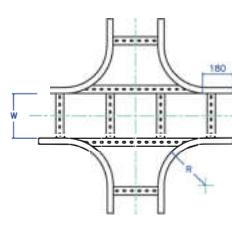
### Recommended Use

Indoor  
Outdoor  
Outdoor

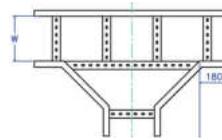
# Cable Ladder Fitting



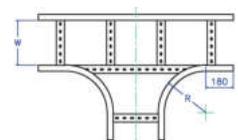
Flatwise Cross  
WDL-CRS W-C-OUT (C)



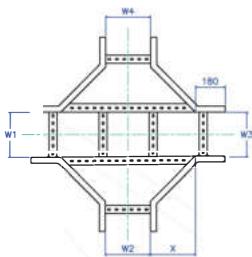
Bend Cross  
WDL-BCRS W-C-OUT (C)



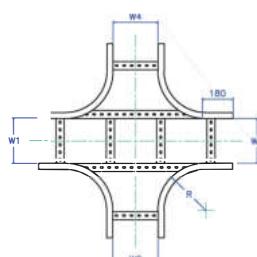
Flatwise Tee  
WDL-TEE W-C-OUT (C)



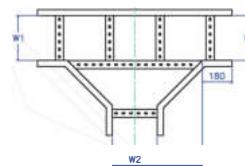
Bend Tee  
WDL-BT W-C-OUT (C)



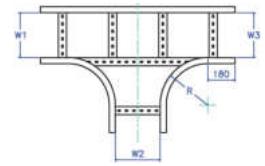
Unequal Cross  
WDL-UC W1/W2/W3/W4-C-OUT (C)



Unequal Bend Cross  
WDL-BUC W1/W2/W3/W4-C-OUT (C)



Unequal Tee  
WDL-UT W1/W2/W3/W4-C-OUT (C)

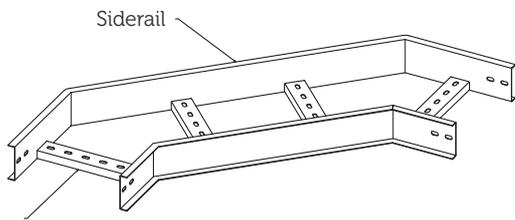


Unequal Bend Tee  
WDL-BUT W1/W2/W3/W4-C-OUT (C)

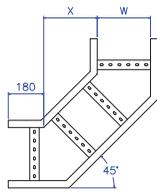
# Cable Ladder Fitting



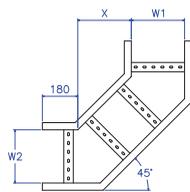
## Flatwise Elbow



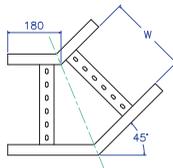
Rung



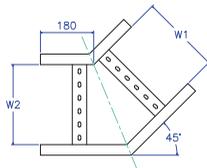
Flatwise Elbow  
WDL-EB W-C-OUT (C)



Unequal Elbow  
WDL-UE W-C-OUT (C)

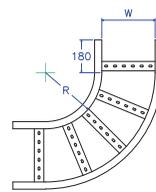
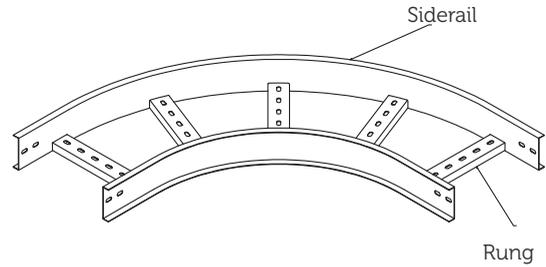


45 Deg Flatwise Elbow  
WDL-EB(45) W-C-OUT (C)

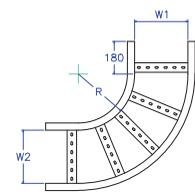


45 Deg Unequal Elbow  
WDL-UE(45) W-C-OUT (C)

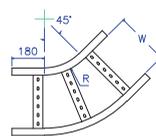
## Bend



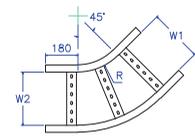
Bend  
WDL-BEND W-C-OUT (C)



Unequal Bend  
WDL-UB W-C-OUT (C)

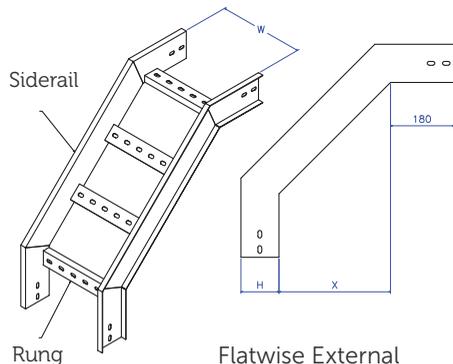


45 Deg Bend  
WDL-BEND(45) W-C-OUT (C)



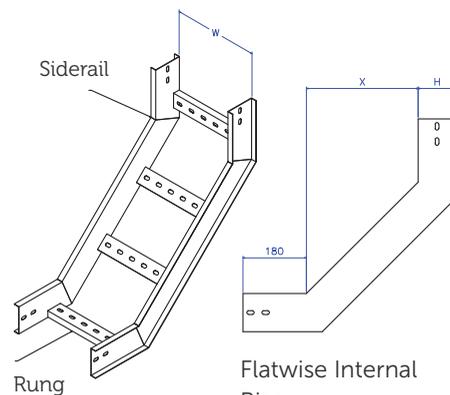
45 Deg Unequal Bend  
WDL-UB(45) W-C-OUT (C)

## Flatwise External Riser



Flatwise External Riser  
WDL-ER W-C-OUT (C)

## Flatwise Internal Riser

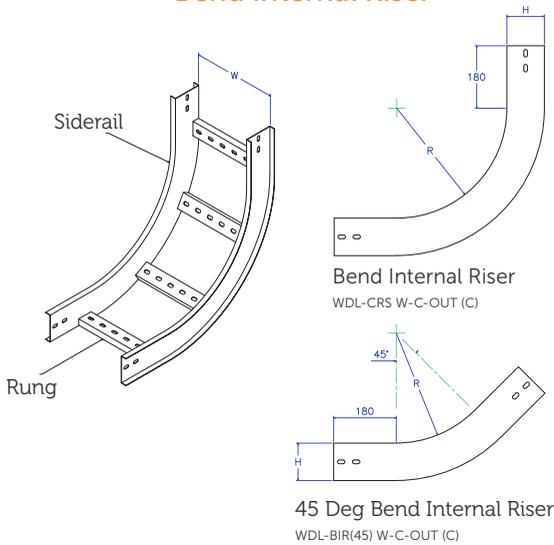


Flatwise Internal Riser  
WDL-UB W-C-OUT (C)

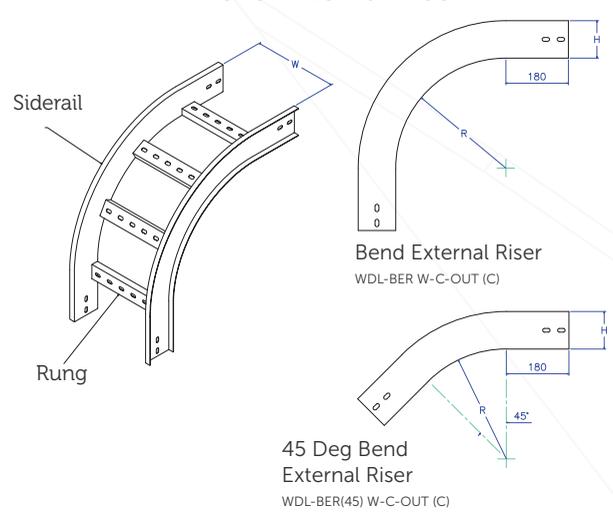
# Cable Ladder Fitting



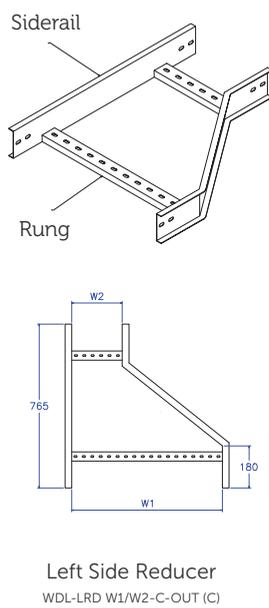
## Bend Internal Riser



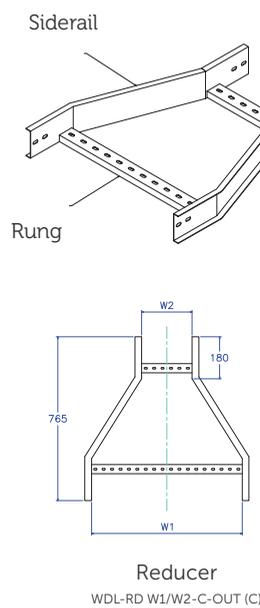
## Bend External Riser



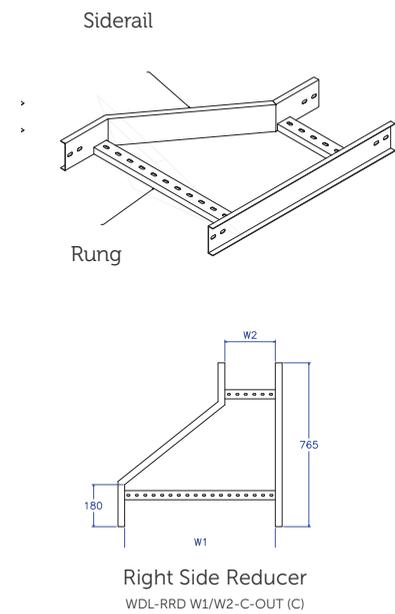
## Left Side Reducer



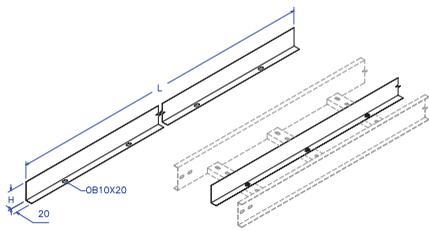
## Reducer



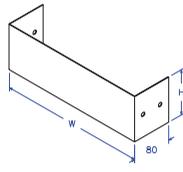
## Right Side Reducer



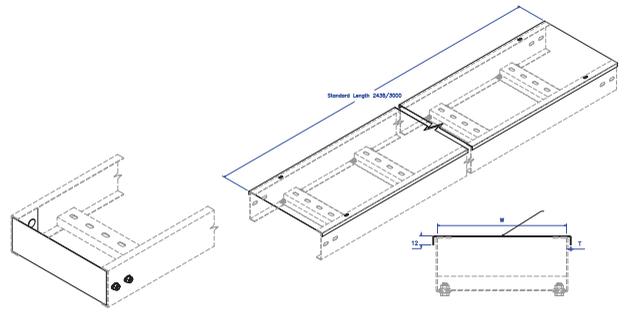
# Cable Ladder Accessories



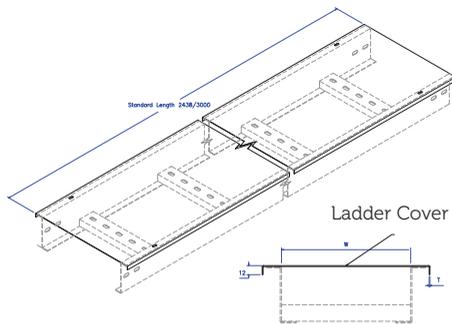
Ladder Divider



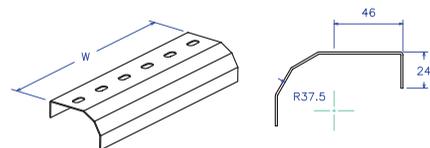
Ladder End Plate



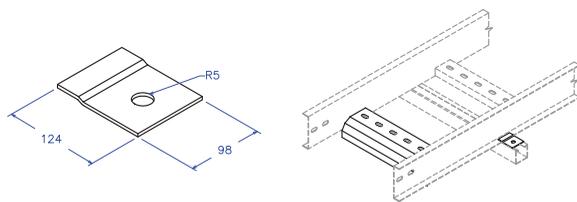
C-In C/W Tapping Screw



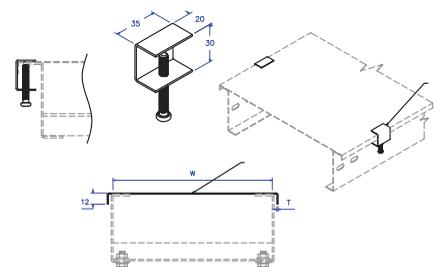
C-Out And Z-Type C/W Tapping Screw



Ladder Drop Out Plate



Ladder Hold Clip

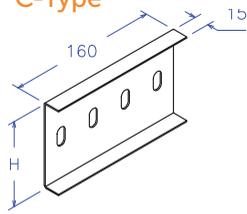


C-Out And Z-Type C/W Hold Down Clamp

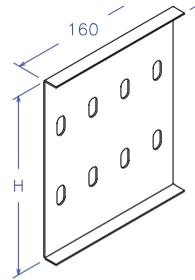
# Cable Ladder Accessories



**C-Type**

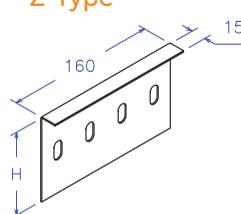


For Ladder Height: 75, 100, and 120mm

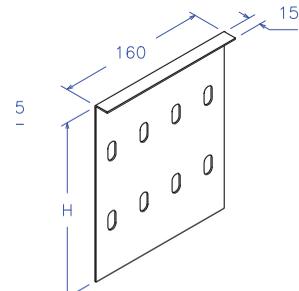


For Ladder Height: 150 and 200mm

**Z-Type**

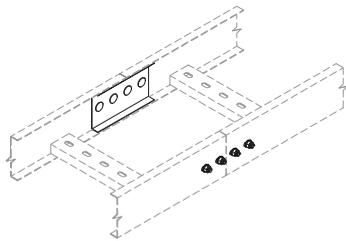


For Ladder Height: 75, 100, and 120mm

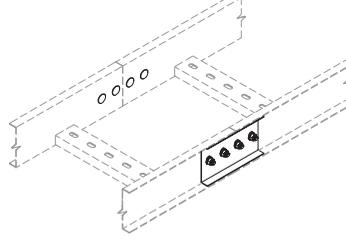


For Ladder Height: 150 and 200mm

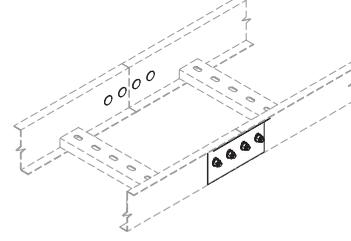
**C-In Type**



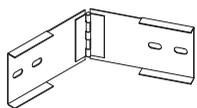
**C-Out Type**



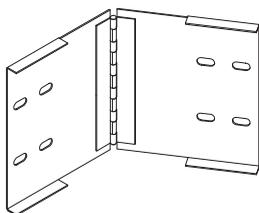
**Z-Type**



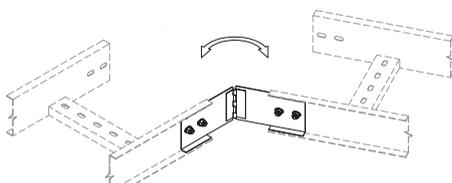
**Horizontal Adjustable Ladder Joint**



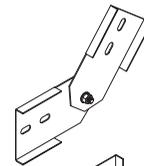
For Ladder Height: 75, 100, and 120mm. C-Type



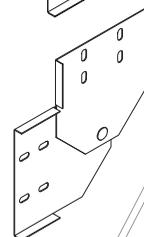
For Ladder Height: 150 and 120mm. C-Type



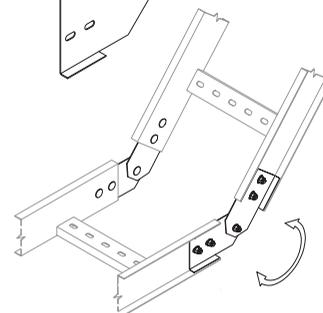
**Vertical Adjustable Ladder Joint**



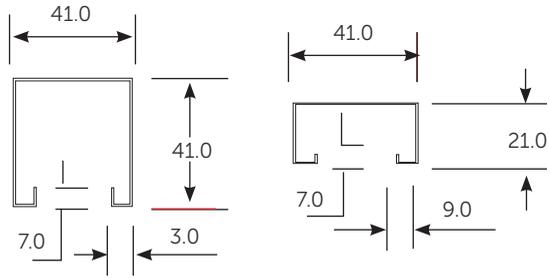
For Ladder Height: 75, 100, and 120mm. C-Type



For Ladder Height: 150 and 200mm. C-Type



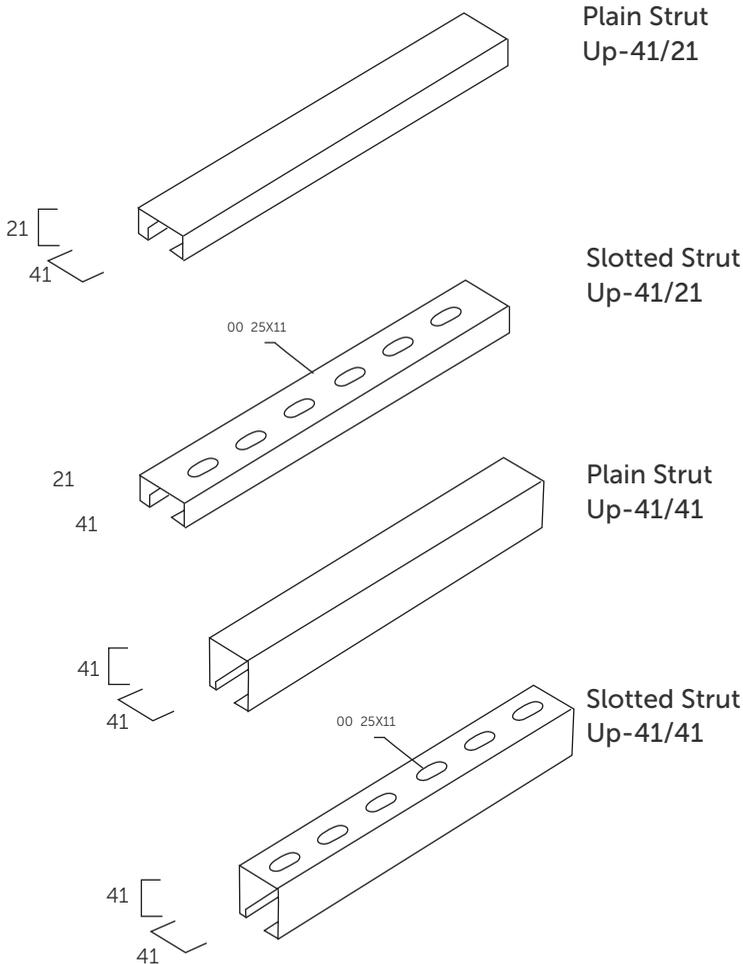
# Heavy Duty Strut Channel



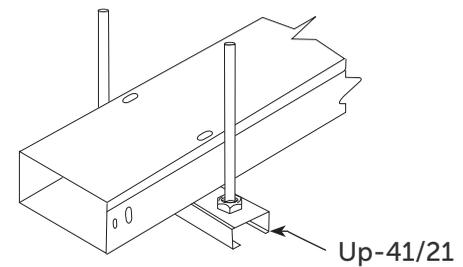
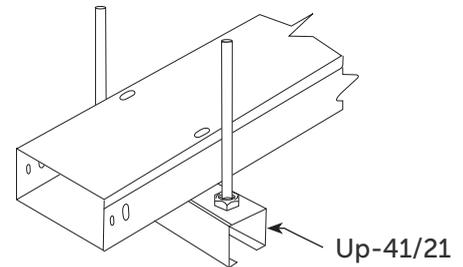
BS 6946 Unistrut (Length 3000mm)

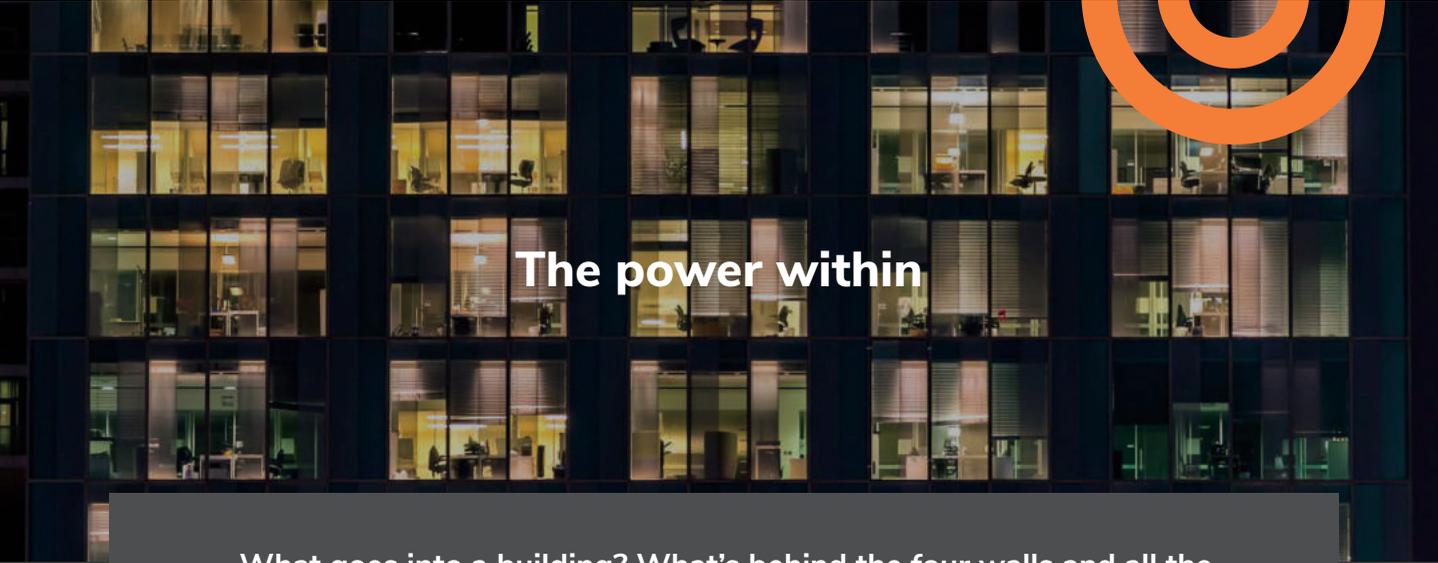
Type	Item Code	Thickness
Plain	UP-41/21	2.0MM/ 2.3MM
Slotted	US-41/21	2.0MM/ 2.3MM
Plain	UP-41/41	2.0MM/ 2.3MM
Slotted	US-41/41	2.0MM/ 2.3MM

*Other requirements available upon request.*



## Example Of Application





## The power within

What goes into a building? What's behind the four walls and all the comforts and convenience of a home that we experience every day? What we don't see is a myriad of inner works that breathe life to a building.

This is where CCM plays its part, behind every building infrastructure. Our pride is empowering contractors, architects and distributors to effectively deliver electricity, light and data to spaces where people work, live and play, in the office, at the malls, and most of all, in the comfort of their homes.

We create innovation and practical, value-driven solutions to our clients. This, is our power within, to help our clients.

## The CCM difference



### High performance products at affordable prices

We have a whole range of proven product superiority and are a key manufacturer and supplier of electrical accessories, at prices that are competitive.



### Value-driven solutions with our focus on cost efficiencies

We know what our clients need to succeed and we deliver - meeting their deadlines, their specific requirements, with cost efficiencies that ensure they never have to pay more than they should.



### Strong focus on R&D

We believe what is good, can even be better. That's why we innovate through constant R&D.



### Highly supportive team

Supporting you and supporting each other. We never think twice about going beyond what is expected of us.



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