



SINCE 1953

# KOUNIS

Metal Industries Pty. Ltd.

ABN 43 008 701 335

ACN 008 701 335





Since 1953

**KOUNIS**  
Metal Industries Pty. Ltd.

## Company Profile

**Kounis Metal Industries** ("KMI") is a privately owned WA company with over sixty years of manufacturing experience. Founded in 1953 and later incorporated in 1966, KMI has continued to show positive growth and stands by its objective to provide products and services of a quality which conforms to customer requirements and which constantly meets expectation in respect to quality, performance, safety and price.

Our services include general and custom sheet metal work, fabrication, CNC laser cutting, CNC turret punching, CNC folding and powder coating services.

KMI manufactures a variety of products for the mining, construction, industrial and commercial sectors which include **electrical switchboards, cable support systems, mechanical pipe support systems and electrical enclosures**. With a dedicated work force and the use of CAD/CAM technology, including computer modeling and sheet metal pattern development directly linked to our CNC machinery, we can provide powerful tools for accuracy, repeatability and productivity.

The company's head office is located in the West Australian suburb of Booragoon on 2.02 hectares of land and is also the location of its main manufacturing plant. This site encompasses over 6000 square metres of manufacturing facilities and extensive hardstand inclusive of specialized warehousing and distribution facilities to support standard product lines.

Additional manufacturing operations have recently been established in the southern suburb of Cockburn offering a further 3000 square metres. KMI has also established a sales and manufacturing facility in Somerton, Victoria for the supply of cable supports and the manufacture of customer sheet metal products, offering over 4000 square metres of plant, hard stand and warehouse.

KMI has been quality assured to international standard ISO 9001 since August 2000 and prides itself on the quality of its systems, employees and product. With stocked product items in excess of 1000, all of which conform to Australian Standards, we are able to provide products of a high standard and in a minimum timeframe.

**Kounis Metal Industries Pty Ltd**

GENERAL MANAGER

JUNE 2013

E.&O.E.



Since 1953

**KOUNIS**  
Metal Industries Pty. Ltd.

## QAS Policy Statement

### Commitment

**Kounis Metal Industries** ("KMI") considers Health, Safety, Environment and Quality (HSEQ) an integral part of the company's business vision and values. The business objective is to provide, with the assistance of our people, a workplace that protects the safety and health of its employees, contractors, customers and visitors, whilst producing products and services of an outstanding quality.

KMI utilises its development and implementation of a documented and systematic HSEQ management system that includes the establishment of HSEQ business standards and supporting procedures, practices, guidance and information. A key aspect of this approach will involve the adoption of risk management for identifying, assessing, controlling and monitoring all areas of the business's operations. In maintaining this commitment, KMI has developed a Quality Assurance System (QAS) which incorporates all aspects of HSEQ, including objectives, targets and key performance indicators, all of which are utilised to enable KMI to continually improve its operations. KMI also provides the resources (both internal and external), equipment, training and reference materials to ensure its HSEQ objectives are met.





## Objective

To provide products and services of a quality which conform to customer requirements and consistently meet our customer's needs and expectations. To achieve this we have implemented a Quality Management System which conforms to ISO 9001. KMI aims to strive towards continuous improvement in products and services for our customers by providing the appropriate training, resources, environment and support necessary.

## Management Responsibilities

The General Manager is ultimately responsible for HSEQ management and compliance throughout the company. All managers, supervisors and leading hands are responsible for work areas under their control, ensuring HSEQ procedures are in place and observed, and for communicating and implementing the necessary information and guidance to achieve the company's objectives. Managers, supervisors and leading hands are expected to continuously promote and maintain a high standard of quality and safety in their respective work areas, to lead by example and encourage involvement of employees.

## Employee Responsibilities

Employees are responsible for actively participating in KMI's HSEQ management system requirements, which include working in a safe and healthy manner, participating in training, complying with company procedures, instructions and directions, not adversely affecting the safety of fellow employees, contractors, customers and visitors, reporting of hazards or incidents, and ensuring the quality of both product and service.

## Communication

KMI, through our consultative process, encourage two way communication, cooperation and involvement of management, employees, contractors and customers in the ongoing development and implementation of our HSEQ management system (QAS).

**Kounis Metal Industries Pty Ltd**



GENERAL MANAGER

JUNE 2013



Since 1953

**KOUNIS**  
Metal Industries Pty. Ltd.

## Cable Support Systems

### Design and Cable Support System Selection

#### Design Standard

The Kounis Metal Industries Cable Support Systems has been designed to provide a rigid and convenient system to support cable and pipe runs over spans up to 6 m. Kounis have designed and tested the range of supports to the NEMA Standards VE-1 to give a range of class rating to meet the requirements of the industry. The NEMA Standard is published by the National Electrical Manufacturers Association based in the U.S.A. This is generally referred to in Australia for design guide lines as there are no Australian Standards. The Standard gives a clear loading to span classification with a 1.5 factor of safety on the collapse load when tested on a simple span which would be the worst case.

#### NEMA Rating

The rating system is based on the Span distance in feet together with the safe working uniform load Category A, B and C, where:

*Span:* Rating ladder span of 12 ft (3.6 m), 16 ft (4.8 m), and 20 ft (6 m)

*Loading:* Safe working uniform load rating of A (75 kg/m), B (112 kg/m) and C (149 kg/m) incorporating a 1.5 Factor of Safety.

Example: 20C class ladder has a safe working load of 149 kg/m over a 20 ft (6 m) span

**Electrical Continuity** According to the NEMA Standards VE-1 the maximum electrical resistance requirement for splice plate connections is 330 micro-ohms to ensure a safe ladder installation

The splice plate connections maximum electrical resistance required by NEMA Standards VE-1 is 330 micro-ohms to ensure a safe ladder

installation. Kounis have tested the splice plates on the cable support system range and they have complied with the NEMA Standard VE-1 standard.

#### Cable Support Selection

To arrive at a suitable design for a Cable Support System there are a few design parameters to consider. Both for Cable Tray and Ladder these are similar, however, the Cable Ladder requirements are generally more demanding than cable tray where the ladders support the main cable route for primary power cables or pipeline supports. The following consideration should be made when selecting a Cable Support System.

#### Cable Ladder

There are four primary considerations for Cable Ladder design:

1. Cable weight or pipe loading that is to be supported over a required span. This determines the side rail height of the support profile which also has to have sufficient internal cable laying depth to take the total height of the cable or pipe. Generally the load will not protrude past the top of the ladder side rail.
2. The required support span or distance between brackets when related to the load determines what the mid span deflection will be. For a standard mid span beam deflection ratio this would be 1/180 of the span but for minimal apparent visual deflection 1/360 would be advisable. By reducing the deflection this can make for a heavier duty ladder requirement or span reduction requiring additional supports and so making for additional costs.

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3. It is important to evaluate the environmental condition where the Cable Support System is to be installed. Standard Cable Ladder supply is from Mild Steel with a Hot Dip Galvanised finish. In most circumstances such as in mining or on processing plants this would be a good economical choice for a lifespan of over 10 years. For use in areas where there are corrosive chemicals or salt laden air the life span of the system would decrease and it could be cost effective to specify Stainless Steel or Aluminium to avoid replacement costs and loss of production.
4. The Kounis range of Standard Cable Ladder is from 150 mm wide and then with progressive incremental sizes of 150 mm up to and including 600 mm wide. This gives a wide range for choice and we can also produce widths over the maximum for specific installations where required. Kounis Standard fittings can usually cater for most cabling but other radii fittings to suit bend radius of large diameter cabling can be supplied where required. Where reinforced fittings are required allowing for large radius without any additional support brackets Kounis make a Structural Type Ladder System. This is a cost effective system for use to minimize deflection or flexing in the fittings and can be used in demanding conditions or cyclonic regions.

## Cable Tray

There are four primary considerations for Cable Ladder design:

1. Calculate the total maximum cable weight that is to be supported over a required support span. This determines the tray side support profile which also has to have sufficient internal cable laying depth to take the total height of the cable.
2. The Support Span which has to take the cable weight determines the type of tray profile that is to be used. The mid span deflection should be kept to a minimum

with positioning of joints adjacent to a support point.

3. Where a multiple quantity of smaller size cables are to be supported a deeper size tray would be required. This is due to the physical depth of cables to be laid on the tray and not necessarily weight.
4. Cable Trays are usually installed inside of buildings so Pre-Galvanised Steel (Galvabond) is the standard material for this type of environment. Where there are corrosive or exposed external conditions other materials such as Aluminium, 316 Stainless Steel or Hot Dip Galvanised can be supplied. Also a powder-coat finish over the Galvabond material is another option.

Generally Kounis Cable Tray Systems have a rolled safety edge on the top of the side rail to avoid any damage to cables that are routed out of the tray. The Ladder Tray has slots for cables to drop through the formed channel.

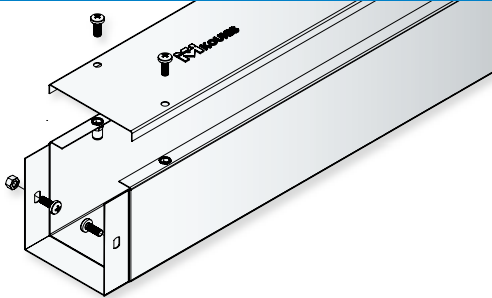
There are a wide range of Kounis Ladder or Tray Support Systems which are stocked and together with our K-Strut Support Channels, Brackets and Framing System enable the designer to solve any support installation.

The following sections of this catalogue give further details of the Kounis Cable Support Range together with our identification codes for ease of identification and procurement. Kounis Metal Industries have a proud history of supplying a top quality system of Cable Supports made to meet the demands of the mining, construction, commercial, offshore oil and gas operations.



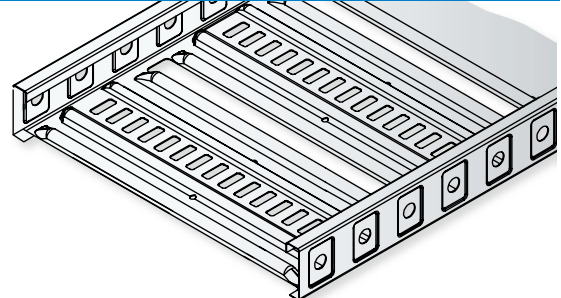
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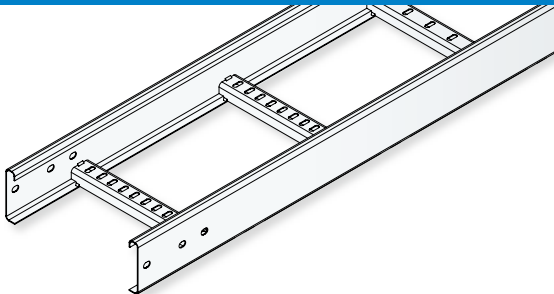
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## Cable Tray



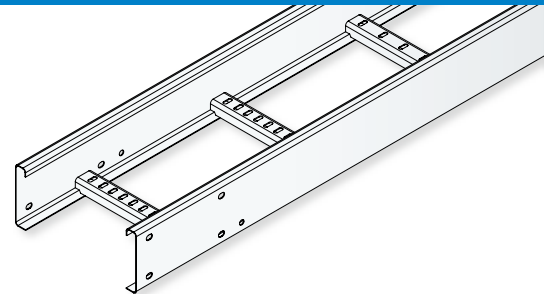
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## Cable Ladder (Hot Dipped Galvanised)



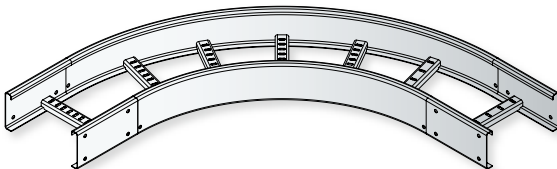
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## Cable Ladder (Stainless Steel & Aluminium)



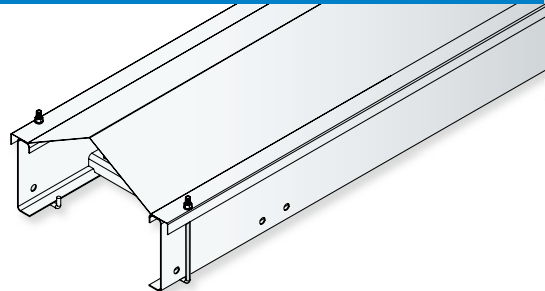
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## Structural Ladder System



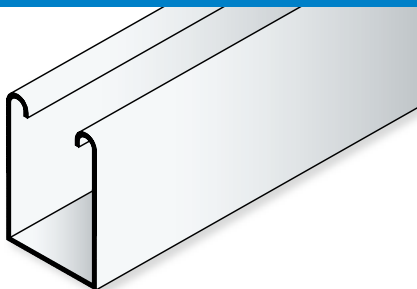
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## CABLE SUPPORTS

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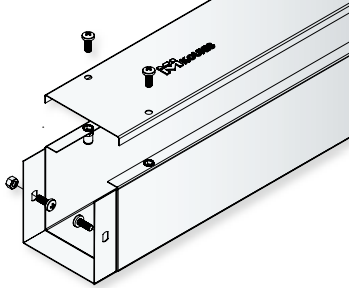
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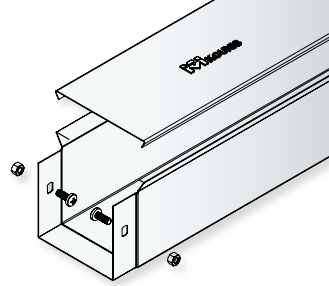
# SECTION 1: Cable Ducting

Screw on Lid Cable Duct



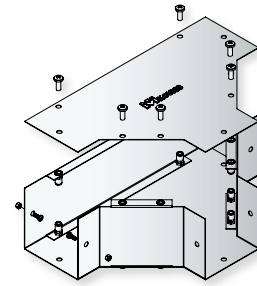
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Clip on Lid Cable Duct



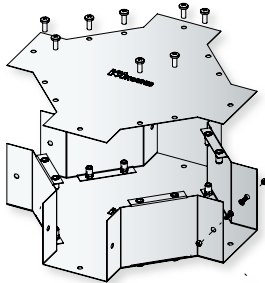
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Equal Tee



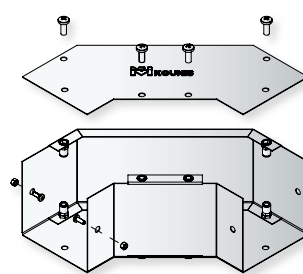
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Equal Cross



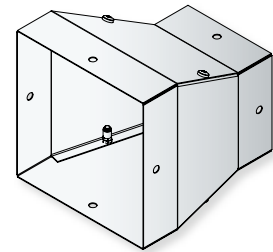
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Combination Bend/Riser



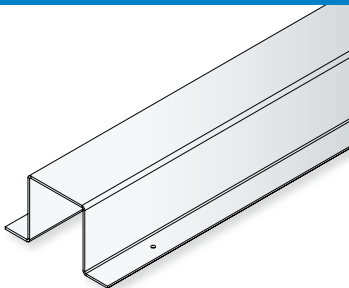
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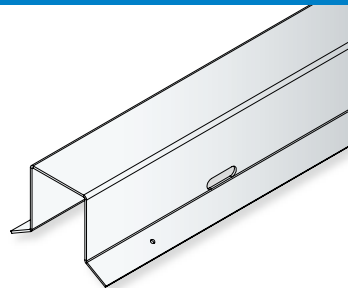
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Surface Mounted Cable Covers



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Pole Mounted Cable Covers



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# Cable Duct Systems

## General Description

The Kounis Metal Industries Cable Duct Systems were developed for use in commercial and industrial applications.

This product range offers complete versatility when undertaking cable installations where segregation and mechanical protection is required

The finished product is constructed from 0.75 mm base material of which there are three finish options **Galvabond**, Mild Steel with post production **Hot Dip Galvanised** surface treatment and 316 Grade **Stainless Steel**. System options are;

**Clip On Lid Ducting System** – Offers a simple and economical means for supporting cables. The lid simply clips on and off for a no tools required access to the cabling

**Screw On Lid Ducting System** – Offers a more robust and secure means for supporting cables, especially in vertical applications. For added security against tampering optional Prolok clutch head screws can be supplied in place of standard Phillips drive fasteners.

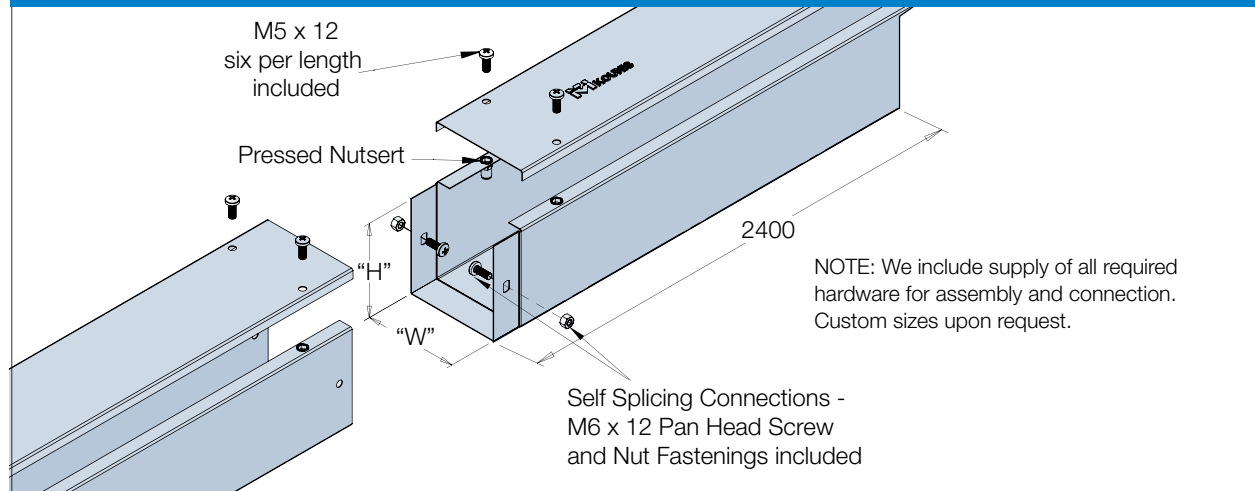
All of which include the following features:

- 2.4 m length
- Multiple width & height options
- Self-splicing ends making for cost efficient installation by eliminating the need for additional materials
- A full range of self splicing combination fittings to suit
- Option for shop fitted divider strip to form separate compartments
- Option for cable tie off points evenly spaced across straight lengths
- Option for conduit entry knockouts

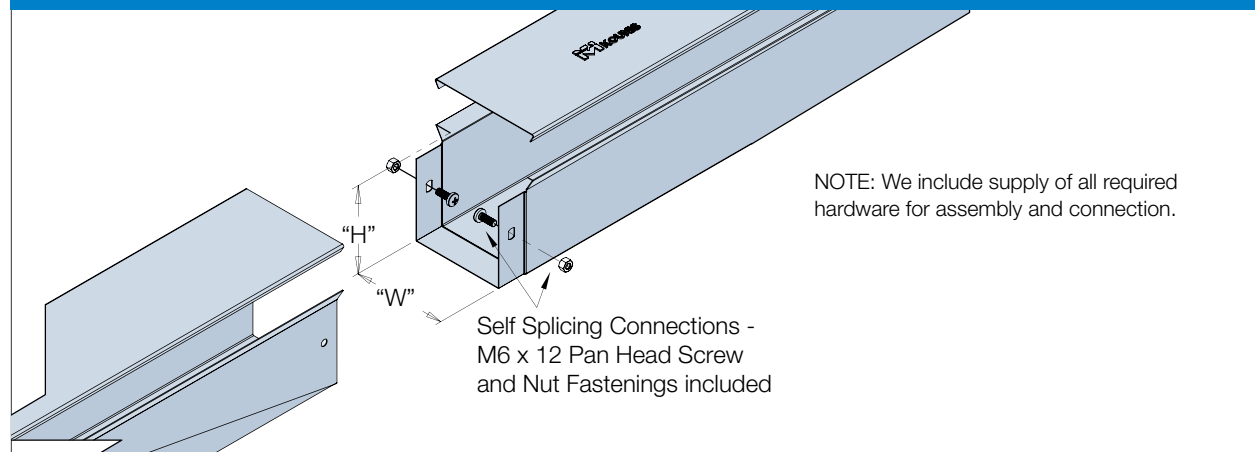
Custom sizes and painted finish is available on request

# Cable Duct

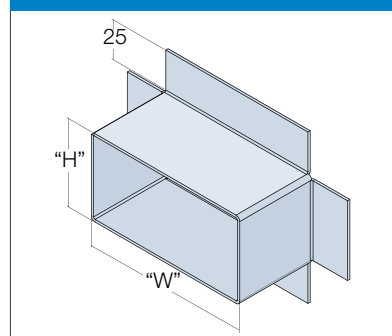
## Screw on Lid Cable Duct



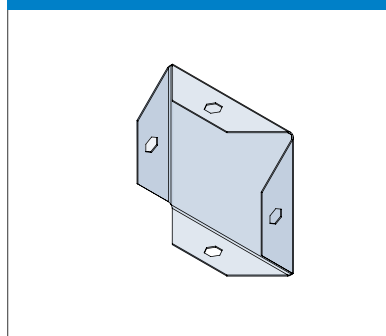
## Clip on Lid Cable Duct



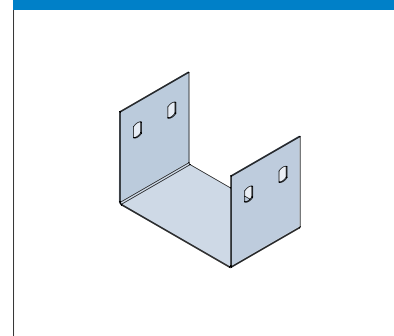
### Flange



### End Cap



### Splice Plate



## When Ordering

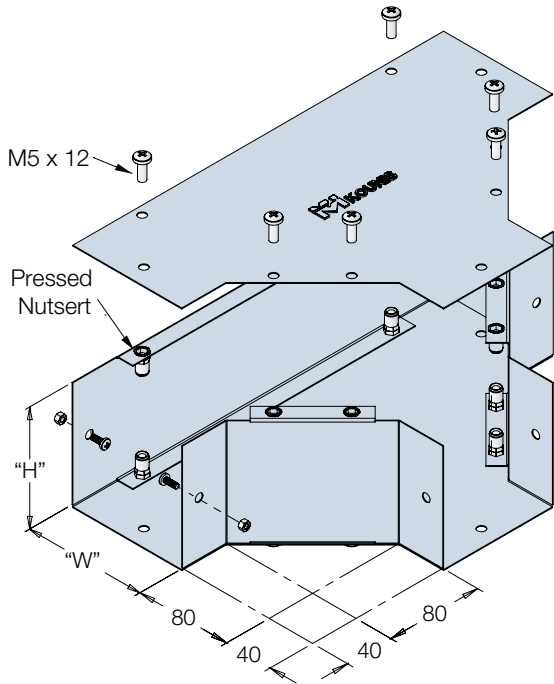
Range	Type	Size	Finish
<b>KD</b>	<b>S</b>	<b>55</b>	<b>G</b>
KD = Duct	S = Screw On C = Clip On P = Splice Plate E = End Cap F = Flange D = Divider	55 = (50 x 50 mm) 77 = (75 x 75 mm) 105 = (100 x 50 mm) 1010 = (100 x 100 mm) 1510 = (150 x 100 mm) 1515 = (150 x 150 mm)	G = Galvabond H = Hot Dip Galvanised S = Stainless Steel P = Painted

Ordering example shown Screw on Duct 50 x 50 mm Galvabond

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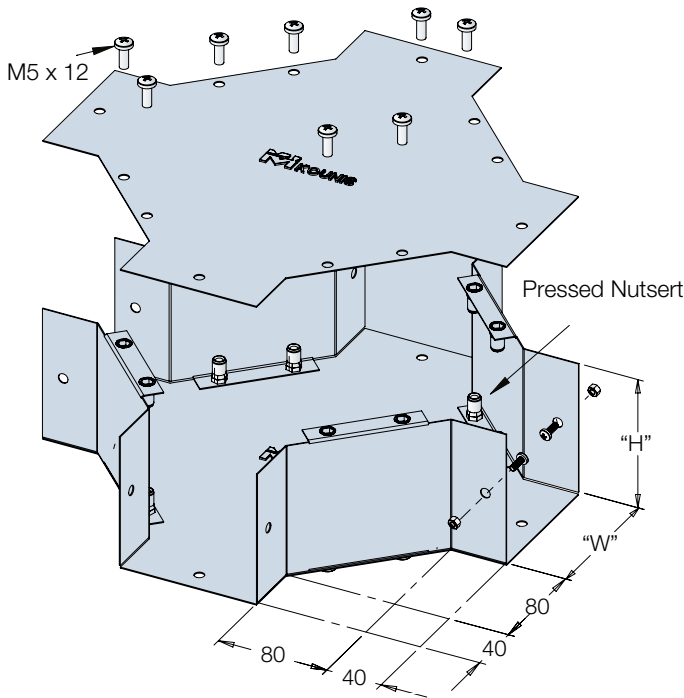
# Cable Duct Fittings

## Equal Tee



NOTE: We include supply of all required hardware for assembly and connection.

## Equal Cross



### When Ordering

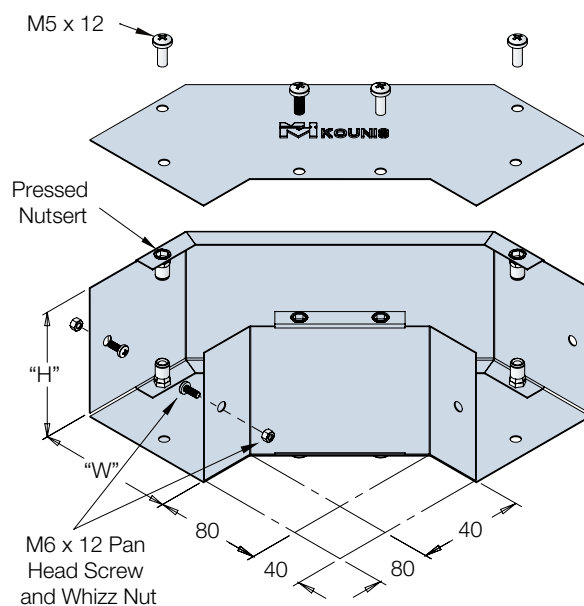
Range	Type	Size	Finish
<b>KD</b>	<b>T</b>	<b>55</b>	<b>G</b>
KD = Duct	T = Tee X = Cross	55 = (50 x 50 mm)	G = Galvabond H = Hot Dip Galv S = Stainless Steel P = Painted
		77 = (75 x 75 mm)	
		105 = (100 x 50 mm)	
		1010 = (100 x 100 mm)	
		1510 = (150 x 100 mm)	
		1515 = (150 x 150 mm)	

Ordering example shown Duct Tee 50 x 50 Galvabond

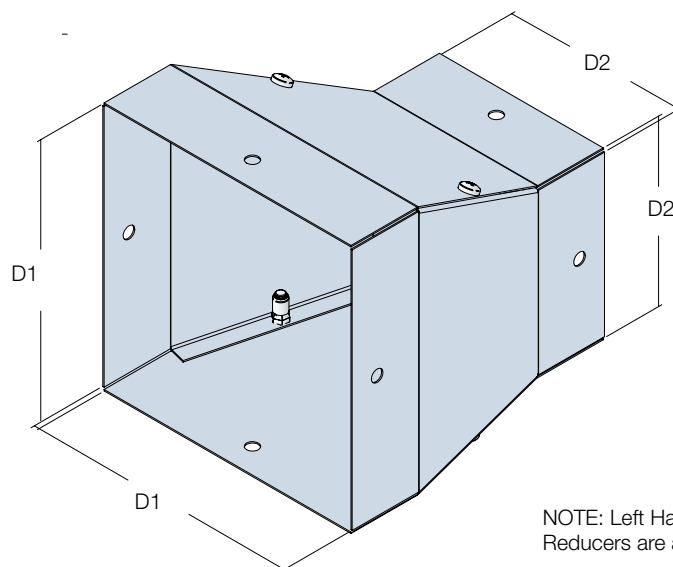
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# Cable Duct Fittings

## Combination Bend/Riser



## Straight Reducer



NOTE: Left Hand and Right Hand Offset Reducers are also available to order.

### When Ordering

Range	Type	Size	Finish
<b>KD</b>	<b>B</b>	<b>55</b>	<b>G</b>
KD = Duct	B = Bend R = Riser SR = Straight Reducer	55 = (50 x 50 mm) 77 = (75 x 75 mm) 105 = (100 x 50 mm) 1010 = (100 x 100 mm) 1510 = (150 x 100 mm) 1515 = (150 x 150 mm) D1 - D2 (Straight Reducer)	G = Galvabond H = Hot Dip Galv S = Stainless Steel P = Painted

Ordering example shown Duct Bend 50 x 50 mm Galvabond

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# Surface & Pole Mounted Cable Covers

## General Description

The Kounis Metal Industries Cable Covers are developed for use in commercial and industrial applications that require mechanical protection over conduit or cable runs.

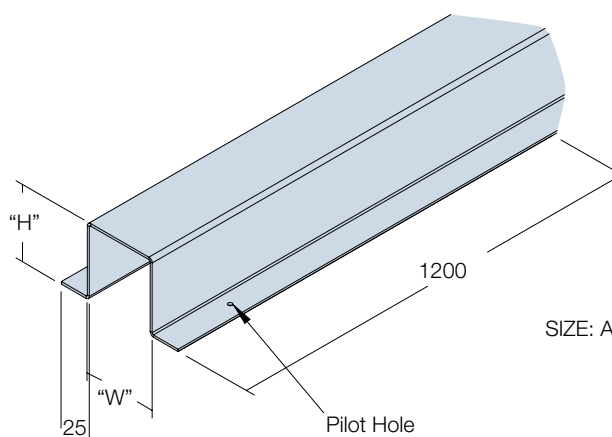
The finished product is constructed from 1.6 mm Mild Steel with post production **Hot Dip Galvanised** surface treatment or 1 mm 316 Grade **Stainless Steel**.

Stock standard sizes are designed to fit over common size Electrical and Communications conduit systems.

Pole and Surface Mounted Covers come complete with pilot holes for fixing; Pole covers come with the addition of slotted holes positioned at the return fold for strap fixing.

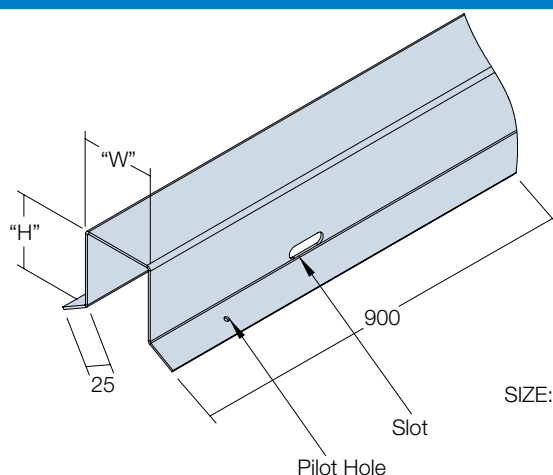
Custom sizes and painted finish is available on request.

### Surface Mounted Cable Covers



SIZE: All dimensions are millimetres and inside sizes.

### Pole Mounted Cable Covers



SIZE: All dimensions are millimetres and inside sizes.

## When Ordering

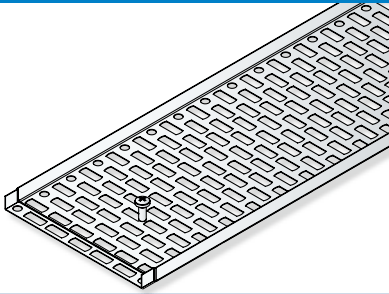
Range	Size	Finish
<b>KSM</b>	<b>25</b>	<b>H</b>
KSM = Surface Mount Cover	25 = (25 x 25 mm)	H = Hot Dip Galv
KPM = Pole Mount Cover	32 = (32 x 32 mm)	S = Stainless Steel
	38 = (38 x 38 mm)	P = Painted
	50 = (50 x 50 mm)	
	75 = (75 x 75 mm)	
	100 = (100 x 100 mm)	

Ordering example shown Surface Mount Cover 25 x 25 mm Hot Dip Galv

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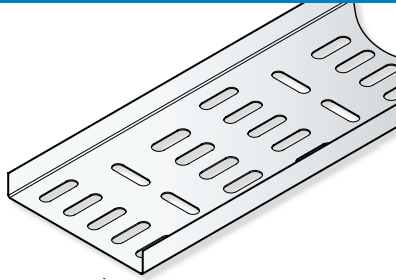
## SECTION 2: Cable Tray

Admiralty Pattern Tray



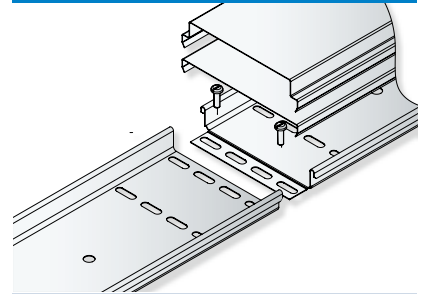
> 2:3

Continuous Punch Cable Tray



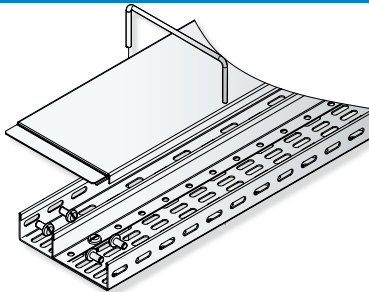
> 2:5

Light Duty Tray



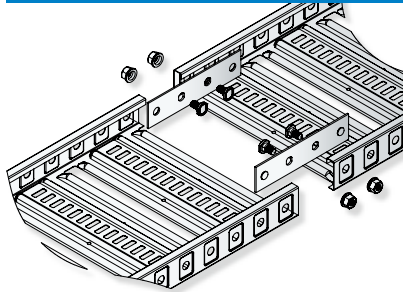
> 2:7

CT Heavy Duty Cable Tray



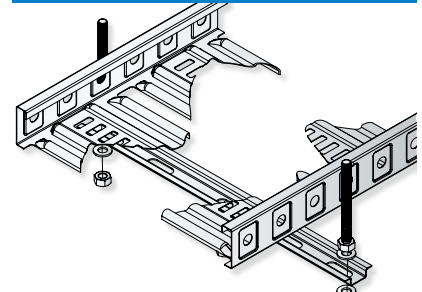
> 2:10

Ladder Tray



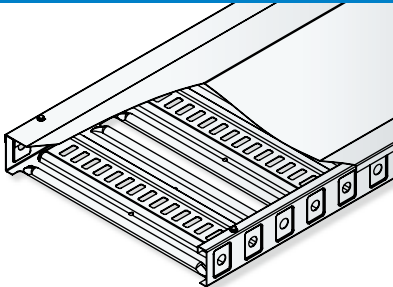
> 2:13

Ladder Tray Accessories



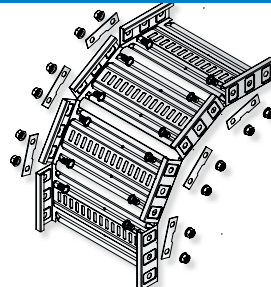
> 2:15

Ladder Tray Covers/Trapeze Supports



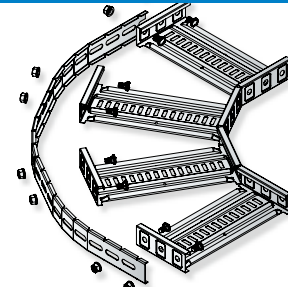
> 2:16

Ladder Tray Riser & Tee



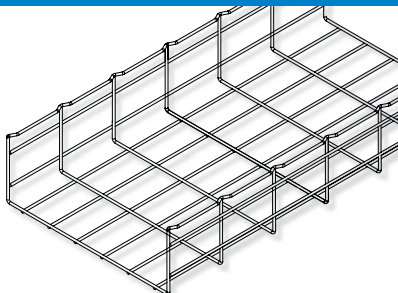
> 2:17

Ladder Tray Bend & Cross



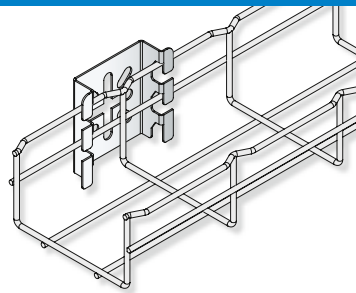
> 2:18

Cable Mesh Tray



> 2:20

Mesh Tray Accessories



> 2:22

E.&O.E.



# Admiralty Pattern Tray

## General Description

The Kounis Metal Industries Admiralty Pattern Tray System was developed for use in general applications where installers are looking for an economical option for cable management.

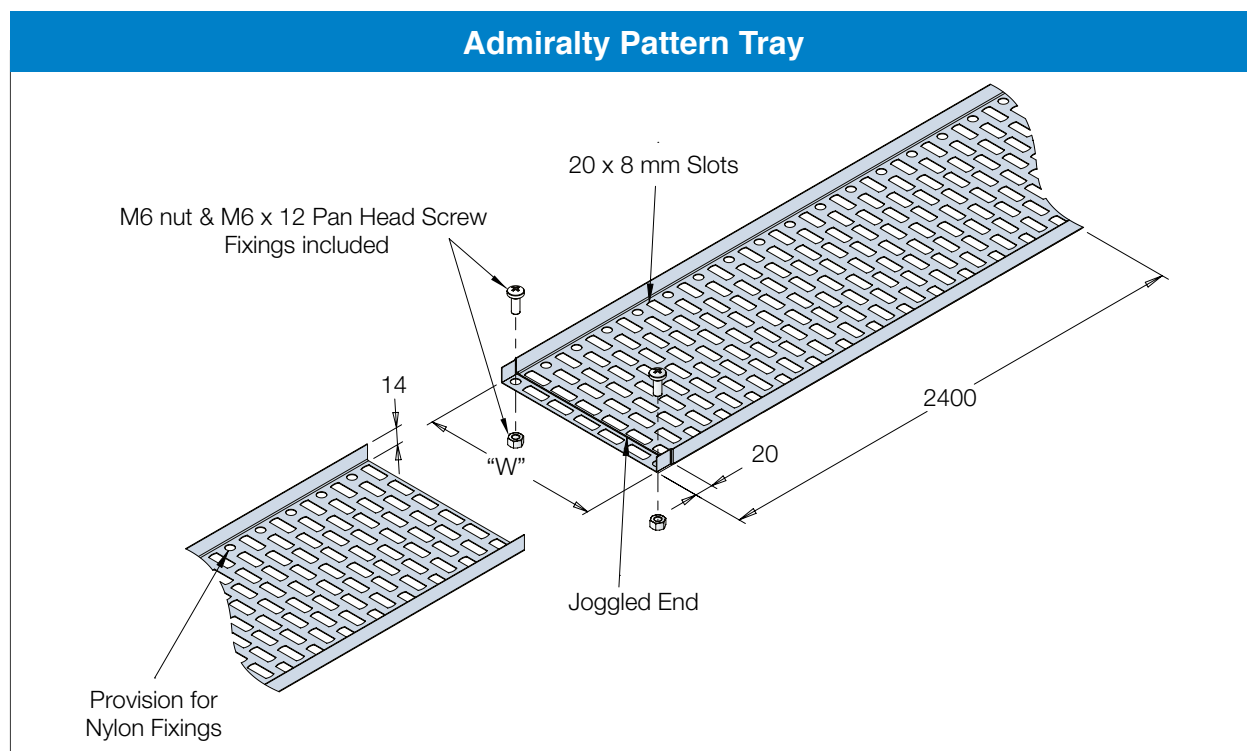
The finished product is constructed from 0.55 mm base material of which there are two options; **Galvabond** and post production **Hot Dip Galvanised** surface treatment. Both of which offer the following features:

- 2.4 m length
- 14 mm side
- Self-splicing ends making for cost efficient installation by eliminating the need for additional materials
- Perforated tie off points at 25 mm continuous centres offering superior ventilation and efficient use of tray width
- Reverse punched to ensure burr free cable laying surface
- A full range of fittings available (**made to order**)

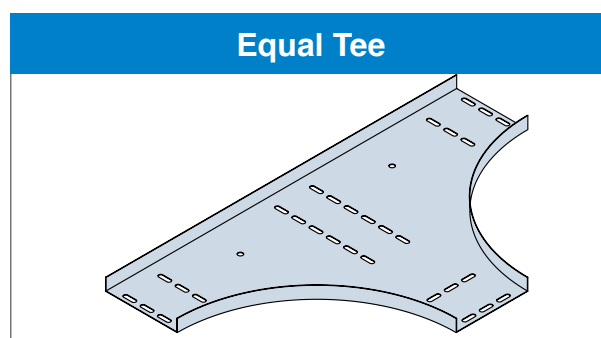
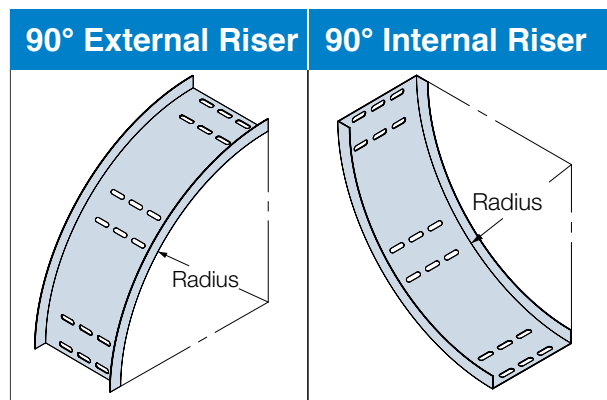
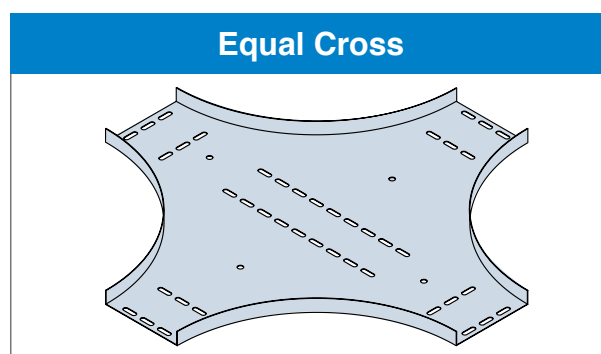
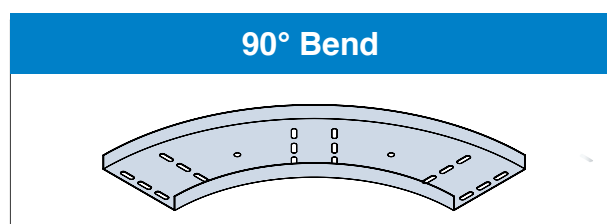
Painted finish is available on request.



## Admiralty Pattern Tray



### Fittings Available on Request



### When Ordering

Range	Type	Size	Finish
<b>KAP</b>	<b>T</b>	<b>7</b>	<b>G</b>
KAP = Admiralty Pattern Tray	T = Tray	7 = 75 mm	G = Galvabond H = Hot Dip Galv P = Painted
	TB = Bend	10 = 100 mm	
	TT = Tee	15 = 150 mm	
	TC = Cross	23 = 230 mm	
	TRX = External Riser	30 = 300 mm	
	TRI = Internal Riser		

Ordering example shown Admiralty Pattern tray 75 mm Galvabond

Fittings can be site manufactured utilizing the tray. Factory made fittings can be manufactured on request. Standard Fittings Radius 300 mm.

E.&O.E.

## Continuous Punch Cable Tray

### General Description

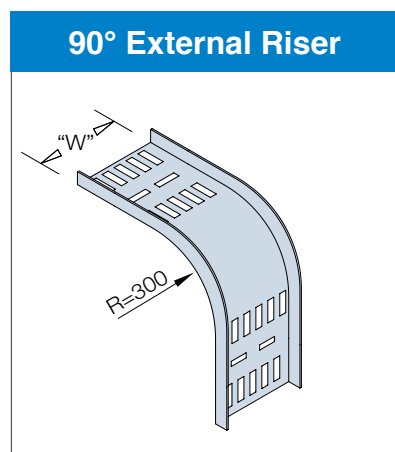
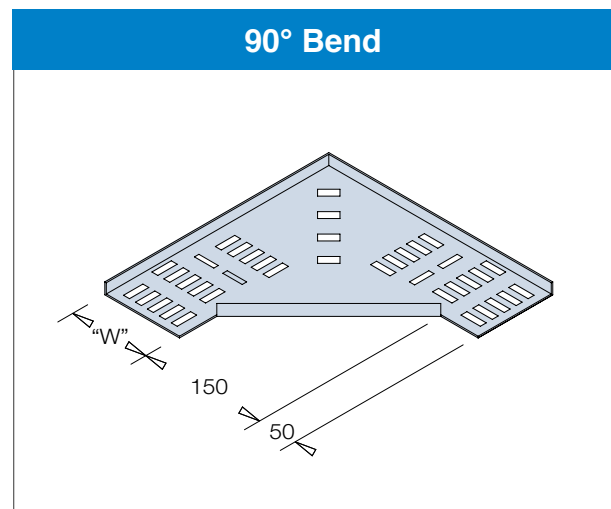
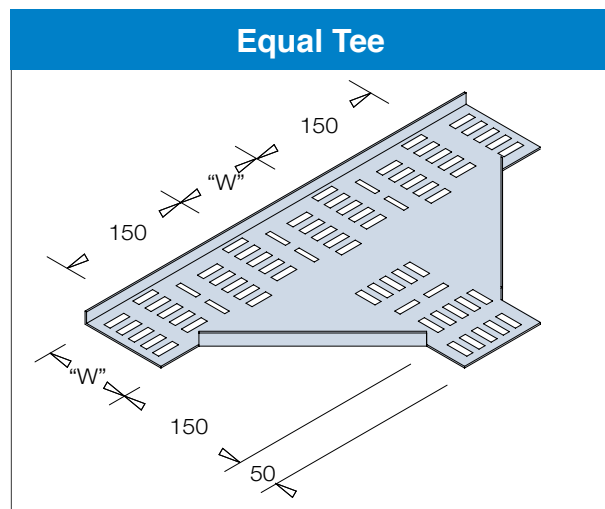
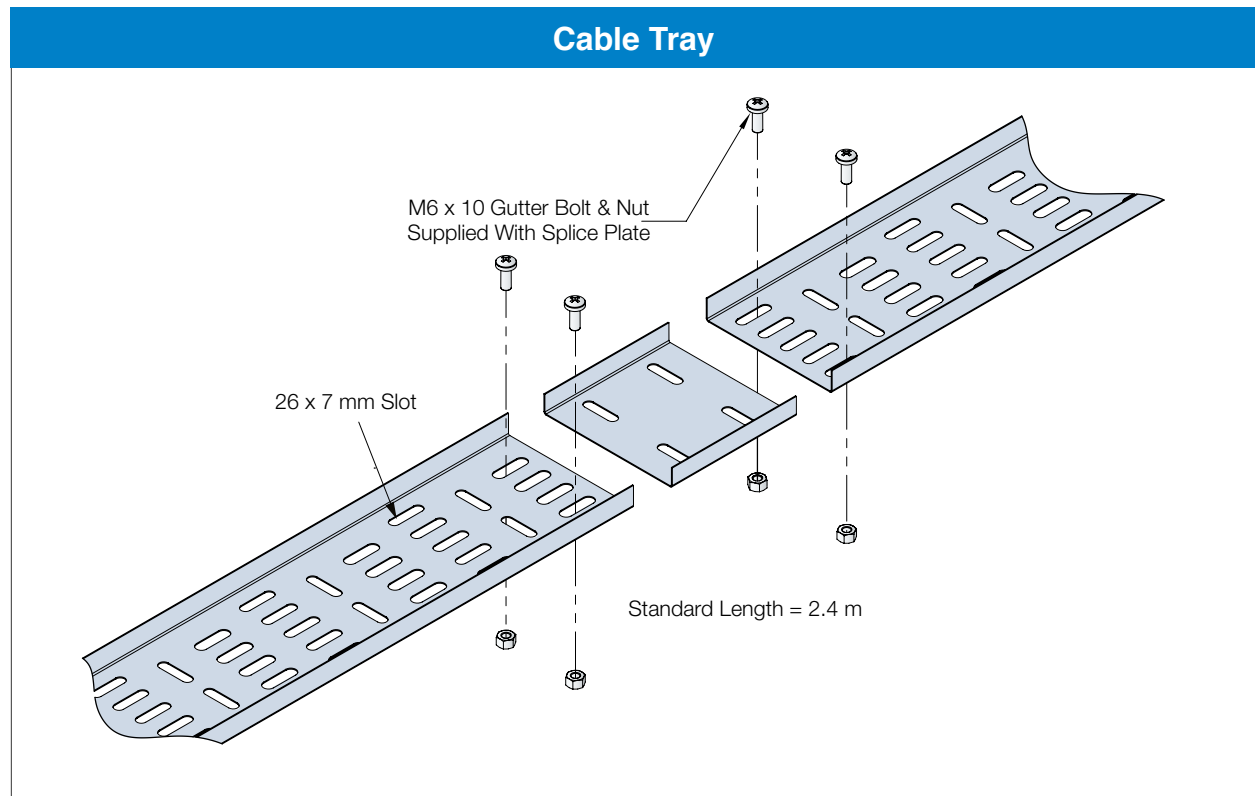
The Kounis Metal Industries Continuous Punch Cable Tray System was developed for use in Instrumentation and shipbuilding applications where the surrounding environment calls for a low profile medium durability system that can withstand impact from wind and loose debris.

The finished product is constructed from a variety of material finishes and thicknesses ranging from; **Galvabond** 0.90 mm, **Hot Dip Gavanised** 0.90 mm, 316 Grade **Stainless Steel** 0.90 mm and **Aluminium** 2.0 mm. All of which offer the following standard features and options:

- 2.4 m length
- 14 mm side
- Perforated tie off points at running length and width wise consecutively offering multiple options for cable tie off and superior ventilation
- A full range of fabricated fittings to suit

Custom sizes and painted finish available on request

# Continuous Punch Cable Tray



## When Ordering

Range	Type	Size	Finish
<b>CP</b>	<b>T</b>	<b>7</b>	<b>G</b>
CP = Continous Punch Cable Tray	T = Tray	7 = 75 mm	G = Galvabond
	B = Bend	10 = 100 mm	H = Hot Dip Galv
	TT = Tee	15 = 150 mm	A = Aluminium
	C = Cross	23 = 230 mm	S = Stainless Steel
	RX = External Riser	30 = 300 mm	P = Painted
	RI = Internal Riser	45 = 450 mm 60 = 600 mm	

Ordering example shown Continous Punch Tray 75 mm Galvabond

E.&O.E.

## Light Duty Tray

### General Description

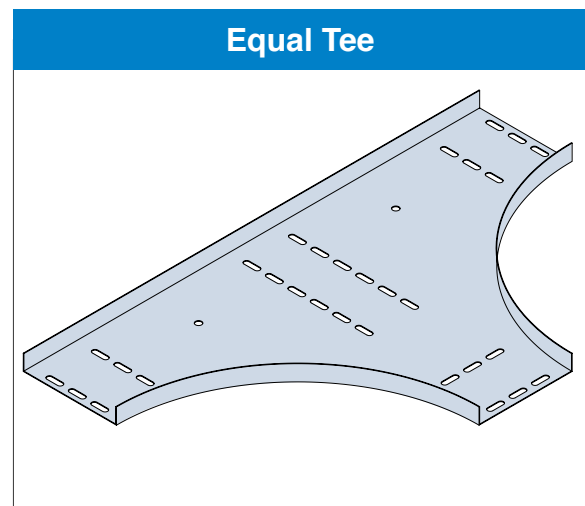
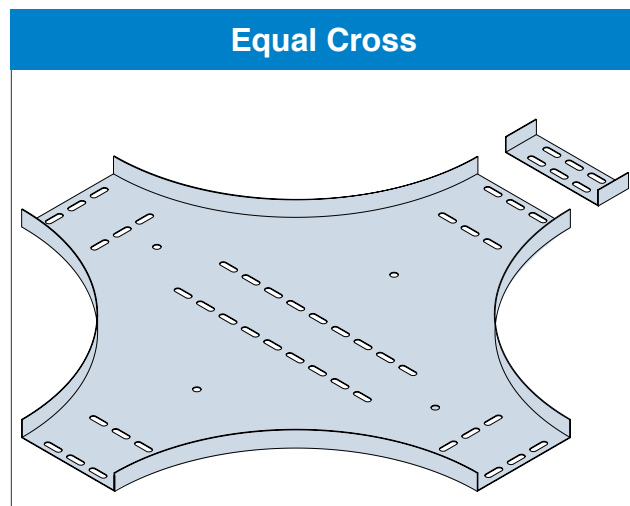
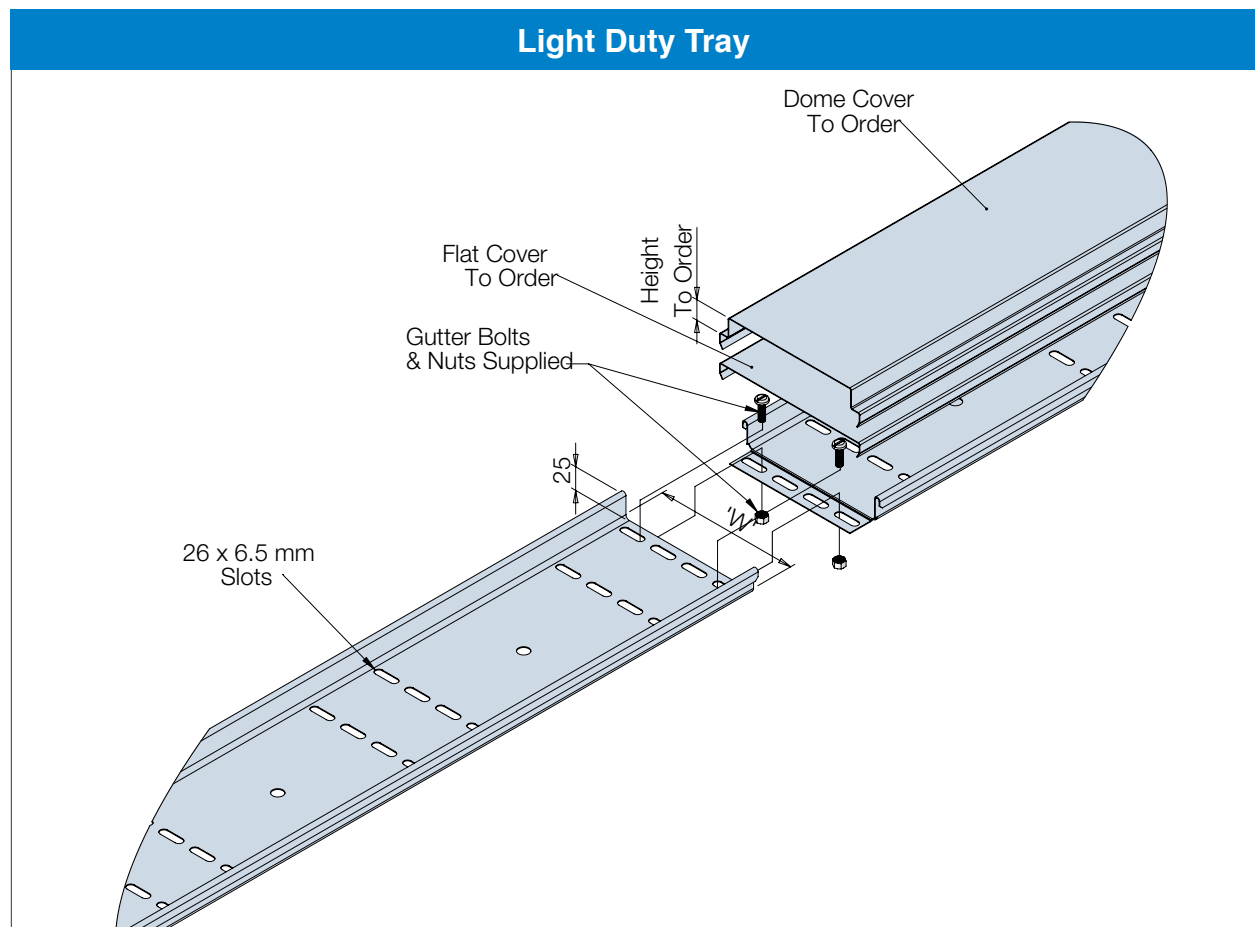
The Kounis Metal Industries Light Duty Tray System was developed for use in any application where installers are looking for exceptional load bearing characteristics from a light series tray system.

The finished product is constructed from a variety of material finishes and thicknesses; **Galvabond** 0.8 mm thick up to 300 mm wide and 1.0 mm for 450 and 600, **Hot Dip Galvanised** 0.8 mm thick up to 300 mm wide and 1.0 mm for 450 and 600, **Stainless Steel** 0.9 mm thick all sizes, **Aluminium** 2.0 mm thick all sizes. All of which offer the following standard features and options:

- 2.4 m length
- 25 mm side with rolled lip stiffening
- Self-splicing ends making for cost efficient installation by eliminating the need for additional materials
- Evenly spaced perforated tie off points
- Centre hang option
- A full range of fittings available (**splice plates required**)

Painted finish and custom fittings available on request

## Light Duty Tray



### When Ordering

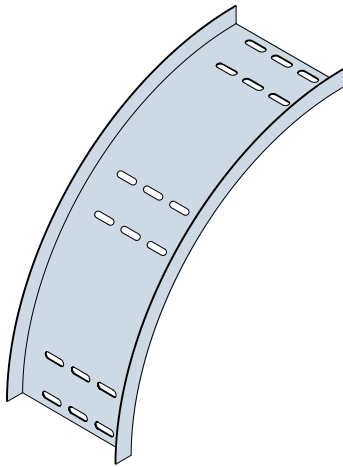
Range	Type	Size	Finish
<b>LD</b>	<b>T</b>	<b>7</b>	<b>G</b>
LD = Light Duty Cable Tray	T = Tray TT = Tee C = Cross FC = Flat Cover DC = Dome Cover (Height to order)	7 = 75 mm 10 = 100 mm 15 = 150 mm 23 = 230 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm	G = Galvabond H = Hot Dip Galv A = Aluminium S = Stainless Steel P = Painted

Ordering example shown Light Duty Cable Tray 75 mm Galvabond

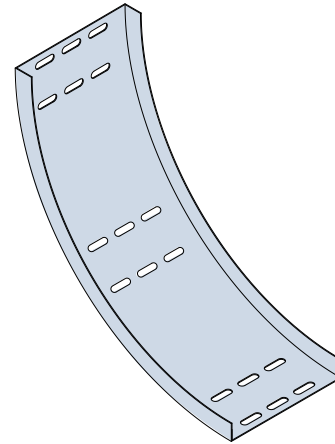
E.&O.E.

## Light Duty Tray

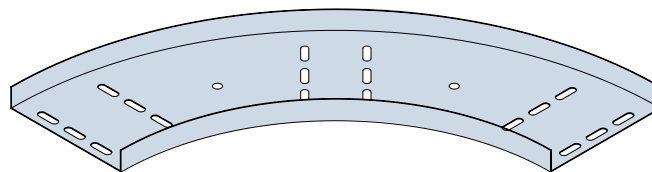
90° External Riser



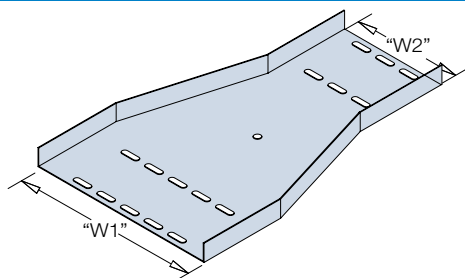
90° Internal Riser



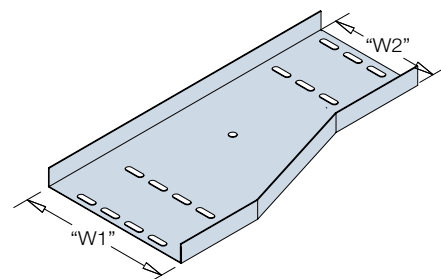
90° & 45° Bend



Straight Reducer



Offset Reducer Left



### When Ordering

Range	Type	Size	Finish
<b>LD</b>	<b>B</b>	<b>7</b>	<b>G</b>
LD = Light Duty Cable Tray	B = Bend RX = External Riser RI = Internal Riser SR = Straight Reducer LR = Left Reducer RR = Right Reducer	7 = 75 mm 10 = 100 mm 15 = 150 mm 23 = 230 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm	G = Galvabond H = Hot Dip Galv A = Aluminium S = Stainless Steel P = Painted

Ordering example shown Light Duty Cable Tray Bend 75 mm Galvabond

E.&O.E.

# CT Heavy Duty Cable Tray

## General Description

The Kounis Metal Industries CT Heavy Duty Cable Tray System was developed for use in mining and offshore applications and has been designed for use in demanding locations where additional strength and durability are required due to extreme winds.

The finished product is constructed from 1.6 mm base material of which there are four options; **Mild Steel** with post production **Hot Dip Galvanised** surface treatment, **Galvabond**, 316 Grade **Stainless Steel** and **Aluminium**. All of which offer the following features:

- 2.4 m length
- 40 mm side
- Double folded top flange giving extra load bearing characteristics with no sharp edges
- Perforated tie off points at 40 mm continuous centres running length wise enabling wider cable bandings to be used as well as offering superior ventilation
- A full range of fabricated fittings to suit
- Heavy duty covers can be supplied complete with clamp rod fixing brackets

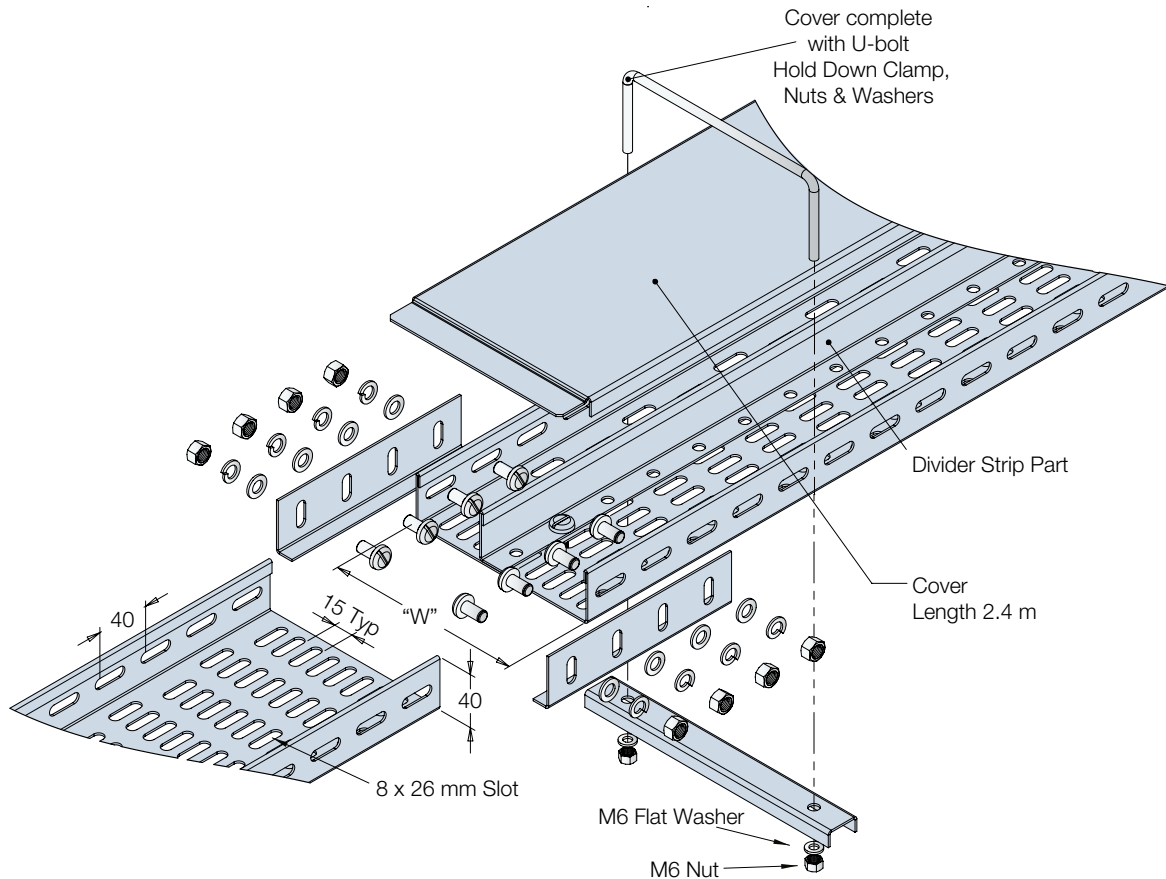
Custom sizes and painted finish available on request.

# CT Heavy Duty Cable Tray

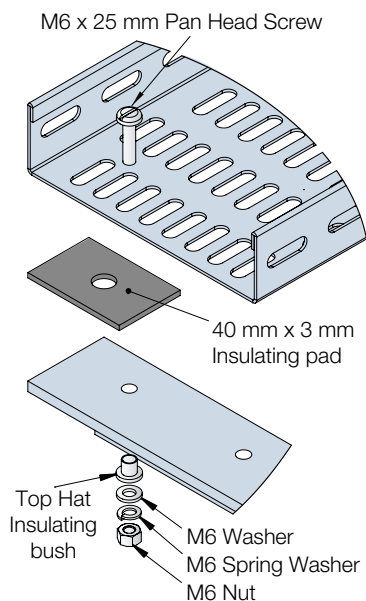
CABLE TRAY

CT Heavy Duty Cable Tray

## CT Cable Tray



### Fixing and insulation where dissimilar materials are used



### When Ordering

Range	Type	Size	Finish
<b>CT</b>	<b>T</b>	<b>7</b>	<b>G</b>
CT = Heavy Duty Cable Tray	T = Tray FC = Flat Cover D = Divider P = Splice Plate IP = Insulating Pad IB = Insulating Bush	7 = 75 mm 10 = 100 mm 15 = 150 mm 23 = 230 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm	G = Galvabond H = Hot Dip Galv A = Aluminium S = Stainless Steel P = Painted

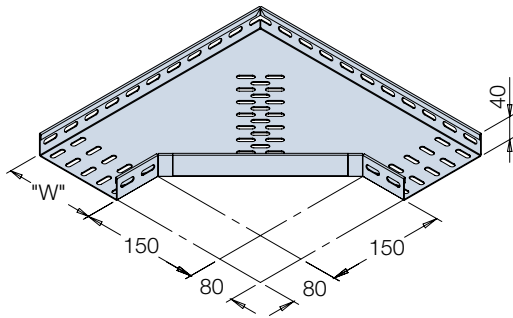
Ordering example shown Heavy Duty Cable Tray 75 mm Galvabond

E.&O.E.

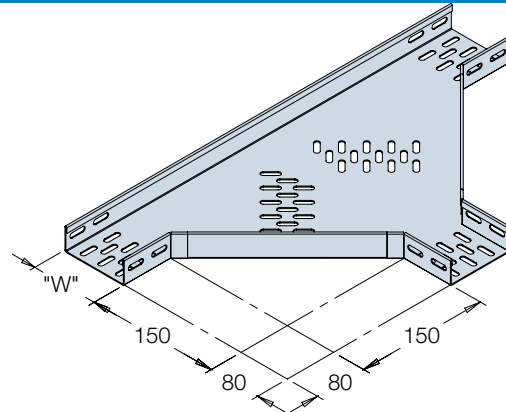


## CT Heavy Duty Cable Tray Fittings

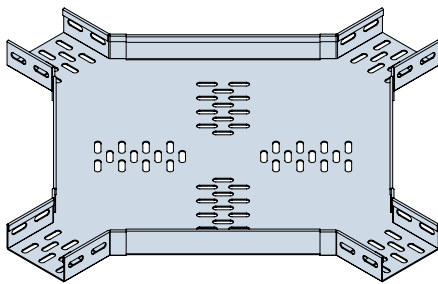
### 90° Bend



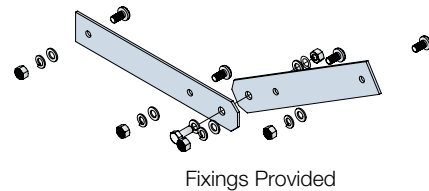
### Equal Tee



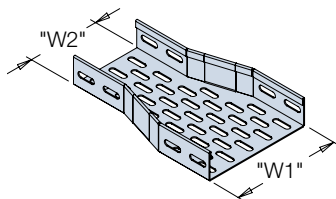
### Equal Cross



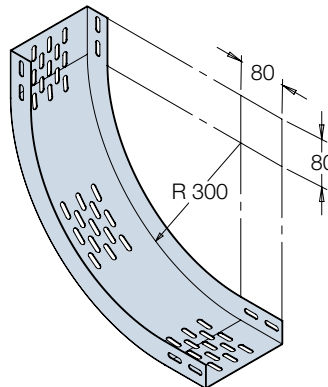
### Vertical Hinged Splice Plate



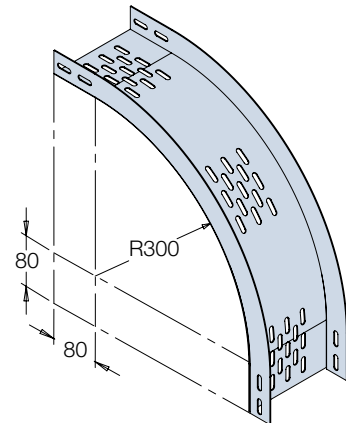
### Straight Reducer



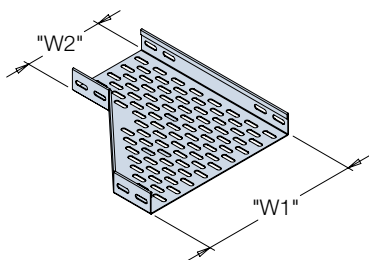
### 90° Internal Riser



### 90° External Riser



### Offset Reducer



### When Ordering

Range	Type	Size	Finish
<b>CT</b>	<b>B</b>	<b>7</b>	<b>G</b>
CT = Heavy Duty Cable Tray	B = Bend	7 = 75 mm	G = Galvabond
	TT = Tee	10 = 100 mm	H = Hot Dip Galv
	C = Cross	15 = 150 mm	A = Aluminium
	VP = Vertical Hinge	23 = 230 mm	S = Stainless Steel
	SR = Straight Reducer	30 = 300 mm	P = Painted
	LR = Left Reducer	45 = 450 mm	
	RR = Right Reducer	60 = 600 mm	

Ordering example shown Heavy Duty Cable Tray Bend 75 mm Galvabond

E.&O.E.

# Ladder Tray

## General Description

The Kounis Metal Industries Ladder Tray System was developed for use in commercial and industrial applications where the installer demands a cost efficient site adaptable cable management system that can offer enough strength and durability to carry light to medium duty cables whilst maintaining an economical support span.

The finished product is constructed from 0.75 mm base material of which there are two finish options; **Galvabond** and **Mild Steel** with post production **Hot Dip Galvanised** surface treatment. System options are

**KT3 Ladder Tray System** – 50 mm high sided tray

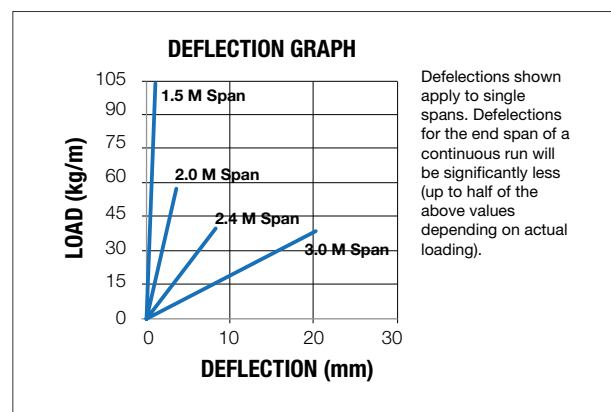
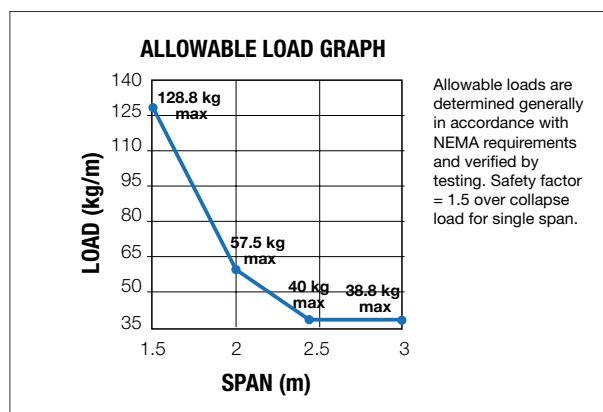
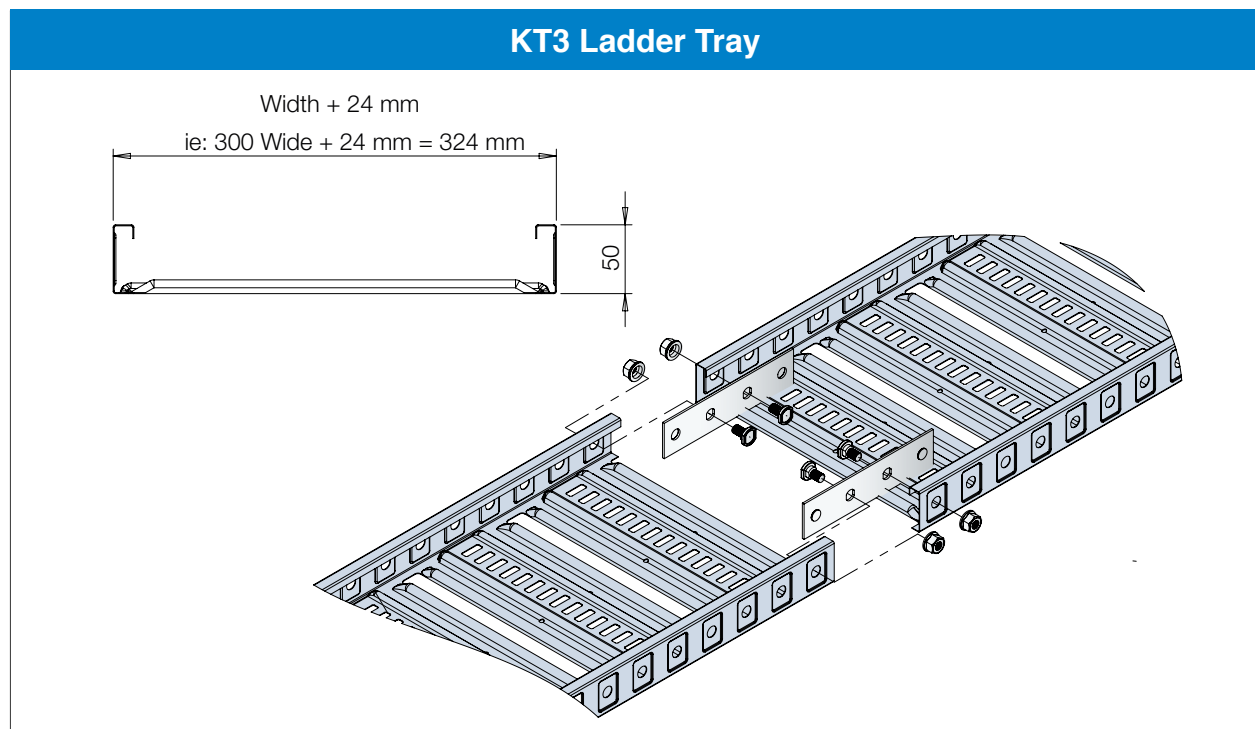
**KT5 Ladder Tray System** – 85 mm high sided tray

All of which offer the following features or options:

- 3m length
- Site fabricated fittings for all required direction, junction or size changes
- Perforated tie off points at 20 mm continuous centres enabling maximum use of the tray width as well as offering superior ventilation
- Drain holes to aid the dissipation of moisture in external applications
- Straight covers to suit
- Barrier Strip for multiple service segregation available
- A full range of pre-fabricated light or heavy trapeze supports

Painted finish available on request.

## KT3 Ladder Tray



The load and deflection graphs apply to all widths of Kounis Ladder Tray. All results were determined in accordance with NEMA VE-1 and verified by testing on single spans and include a Safety factor for allowable loading. For a continuous tray installation the loads shown can be factored up

by approximately 1.25 times that for the single span which is shown. Tray loading and deflections are also influenced by the positioning of the tray connectors and loading. Please refer to NEMA VE2 for installation guidelines.

### When Ordering

Range	Type	Size	Finish
KT	3	15	G
KT = Ladder Tray	3 = (50 mm High Side)	15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm	G = Galvabond H = Hot Dip Galv P = Painted

Ordering example shown Ladder Tray 50 mm High Side 150 mm Wide Galvabond

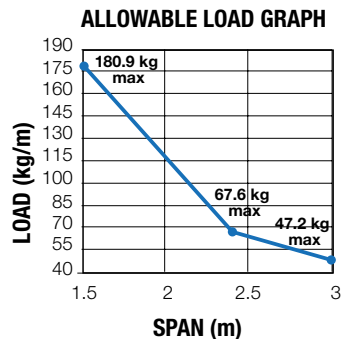
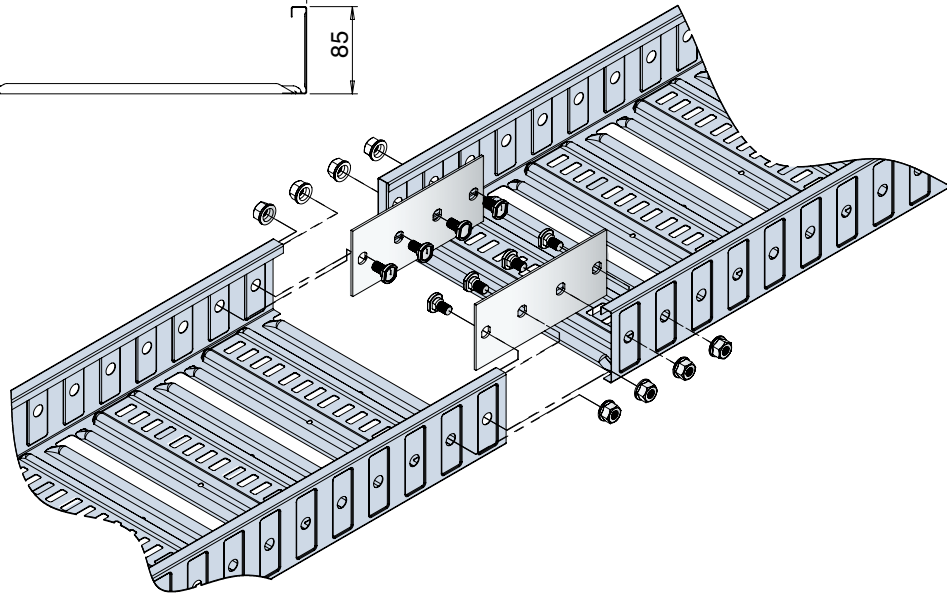
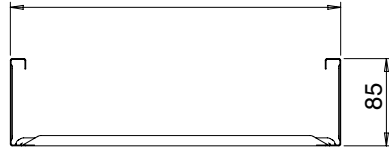
# KT5 Ladder Tray

CABLE TRAY

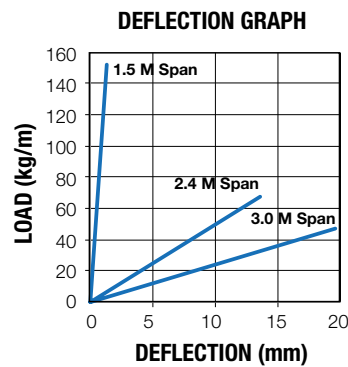
KT5 Ladder Tray

## KT5 Ladder Tray

Width + 24 mm  
ie: 300 Wide + 24 mm = 324 mm



Allowable loads are determined generally in accordance with NEMA requirements and verified by testing. Safety factor = 1.5 over collapse load for single span.



Deflections shown apply to single spans. Deflections for the end span of a continuous run will be significantly less (up to half of the above values depending on actual loading).

The load and deflection graphs apply to all widths of Kounis Ladder Tray. All results were determined in accordance with NEMA VE-1 and verified by testing on single spans and include a Safety factor for allowable loading. For a continuous tray installation the loads shown can be factored up

by approximately 1.25 times that for the single span which is shown. Tray loading and deflections are also influenced by the positioning of the tray connectors and loading. Please refer to NEMA VE2 for installation guidelines.

## When Ordering

Range	Type	Size	Finish
KT	5	15	G
KT = Ladder Tray	5 = (85 mm High Side)	15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm	G = Galvabond H = Hot Dip Galv P = Painted

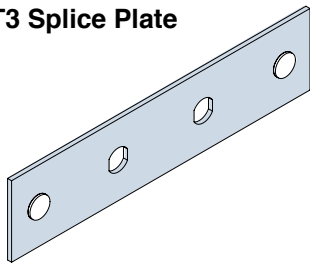
Ordering example shown Ladder Tray 85 mm High Side 150 mm Wide Galvabond

E.&O.E.

# Ladder Tray Accessories

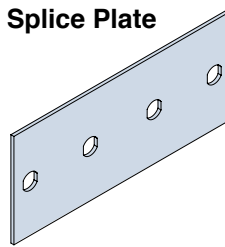
## Ladder Tray Accessories

**KT3 Splice Plate**



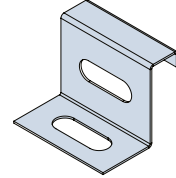
CODE: KT3SP

**KT5 Splice Plate**



CODE: KT5SP

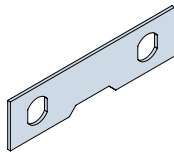
**Hold Down Clamp**



CODE: KT3HDC

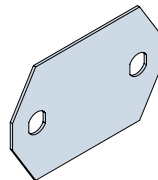
CODE: KT5HDC

**KT3 Riser Link**



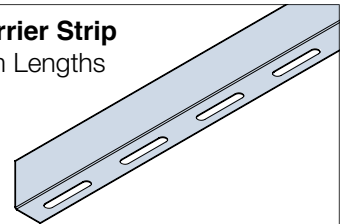
CODE: KT3LP

**KT5 Riser Link**



CODE: KT5LP

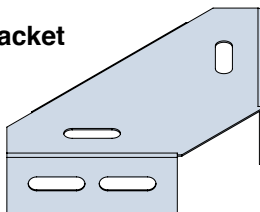
**Barrier Strip**  
3 m Lengths



CODE: KT3BS

CODE: KT5BS

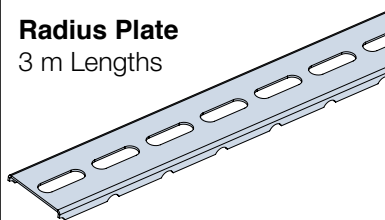
**TX Bracket**



CODE: KT3TX

CODE: KT5TX

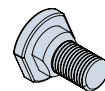
**Radius Plate**  
3 m Lengths



CODE: KT3RP

CODE: KT5RP

**Tray Bolt**



CODE: KTB

**Tray Whizz Nut**



CODE: KTN

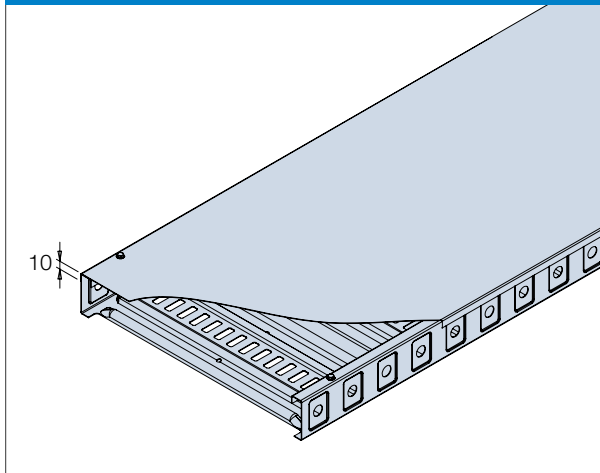
## When Ordering

Range	Type	Size	Finish
<b>KT</b>	<b>3</b>	<b>SP</b>	<b>G</b>
KT = Ladder Tray	3 = (50 mm High Side) 5 = (85 mm High Side)	SP = Splice Plate HDC = Hold Down Clamp LP = Riser Link Plate BS = Barrier Strip TX = Tee / Cross Bracket RP = Radius Plate B = Tray Bolt N = Tray Nut	G = Galvabond H = Hot Dip Galv P = Painted Z = Zinc Plated
	N/A N/A		

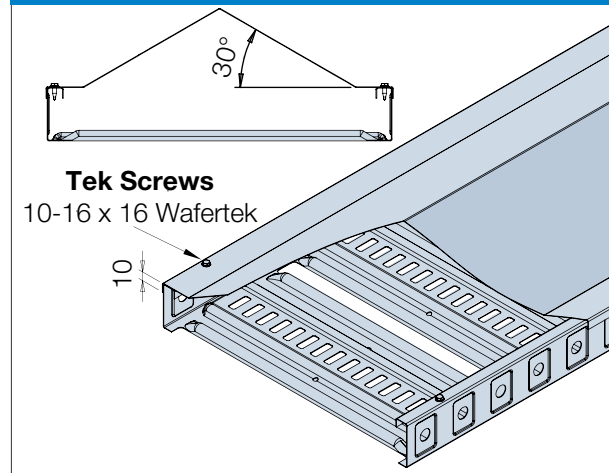
Ordering example shown Ladder Tray 50 mm High Side Splice Plate Galvabond

## Ladder Tray Covers/Trapeze Supports

### Flat Cover for KT3 & KT5 Tray



### Peak Cover for KT3 & KT5 Tray



### When Ordering

Range	Type	Size	Finish
<b>KT</b>	<b>FC</b>	<b>15</b>	<b>G</b>
KT = Ladder Tray	FC = Flat Cover PC = Peak Cover	15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm	G = Galvabond H = Hot Dip Galv P = Painted

Ordering example shown Ladder Tray Flat Cover 150 mm Wide Galvabond finish.

Stock Tray Cover lengths 3 m

Stock Material 0.75 mm

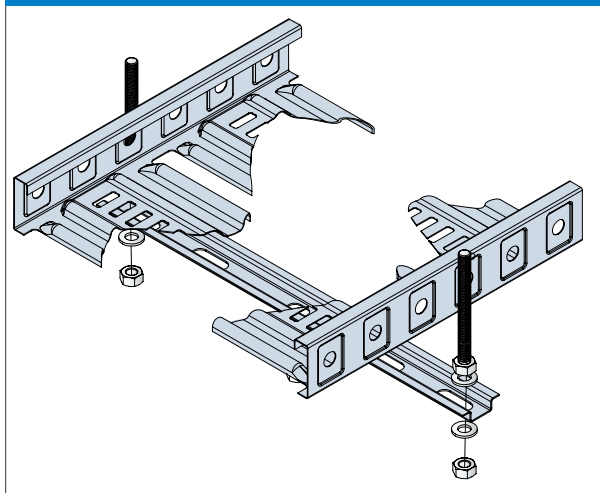
Galvabond all widths

Stock material HDG

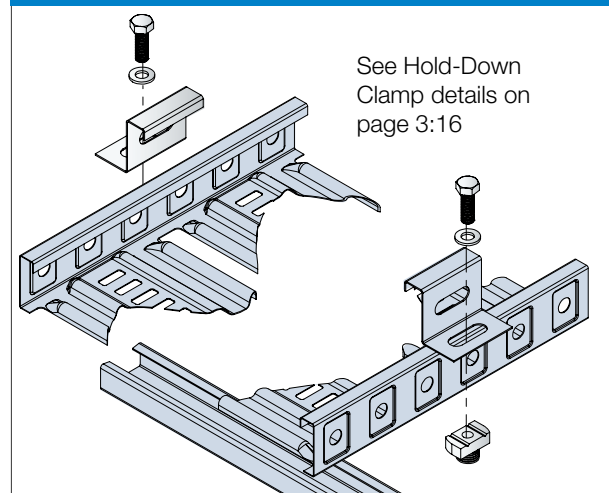
150-300 1.0 mm

450-600 1.2 mm

### Light Duty Trapeze Support



### Heavy Duty Trapeze Support



### When Ordering

Range	Type	Size	Finish
<b>KT</b>	<b>LTS</b>	<b>15</b>	<b>G</b>
KT = Ladder Tray	LTS = Light Duty Support HTS = Heavy Duty Support	15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm	G = Galvabond H = Hot Dip Galv P = Painted

Ordering example shown Ladder Tray Light Duty Support 150 mm Galvabond finish.

Note: Fastenings shown are for Tray Bolts and Nuts only. Fastenings to brackets are by M10 Hex Bolt and to suit the particular support installation.

#### QTY. OF BENDS FROM 3 m LENGTH RADIUS PLATE

WIDTH	BEND 90°
150 mm	4 per Length
300 mm	3 per Length
450 mm	2 per Length
600 mm	2 per Length

#### QTY. OF FITTINGS FROM 3 m TRAY LENGTH

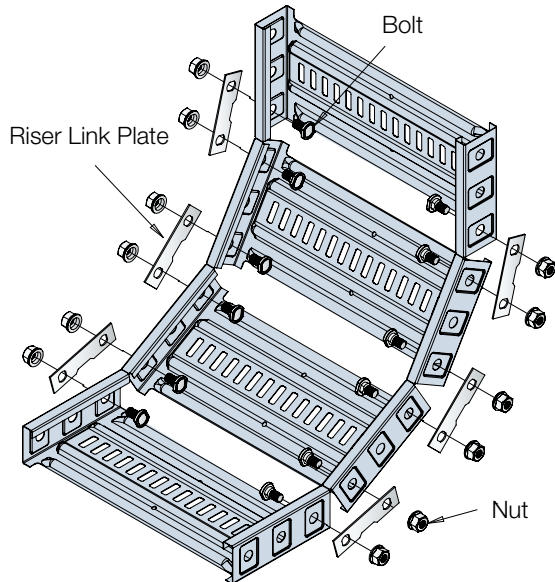
WIDTH	BEND 90°	RISER 90°	TEES
150 mm	5	5	4
300 mm	5	5	3
450 mm	5	5	2
600 mm	5	5	2

E.&O.E.

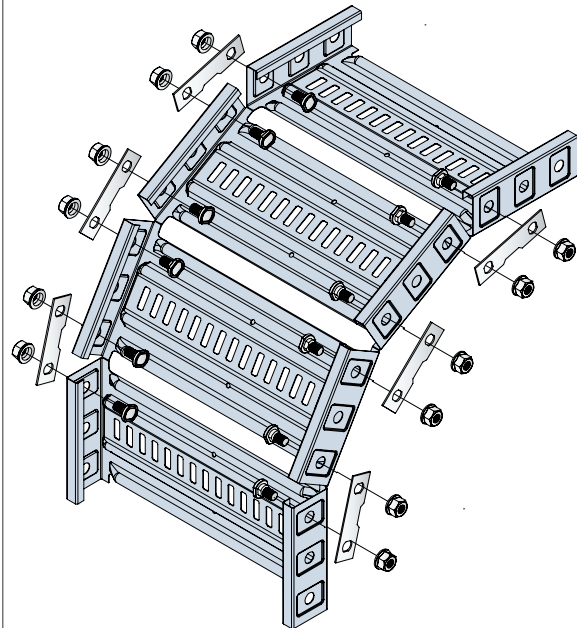


# Ladder Tray Assembly Instructions

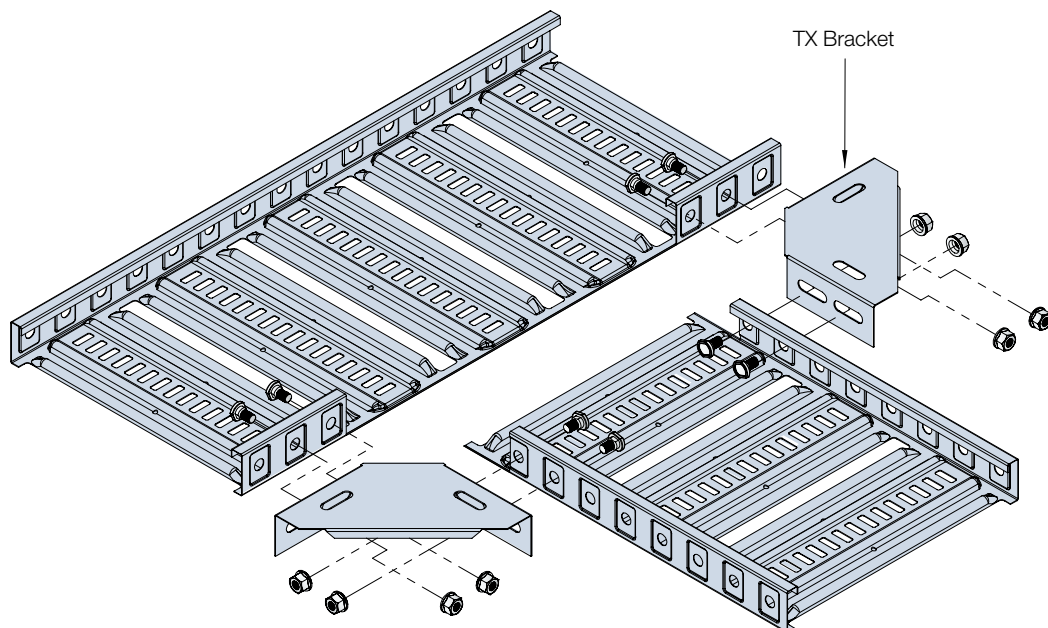
## Internal Riser



## External Riser



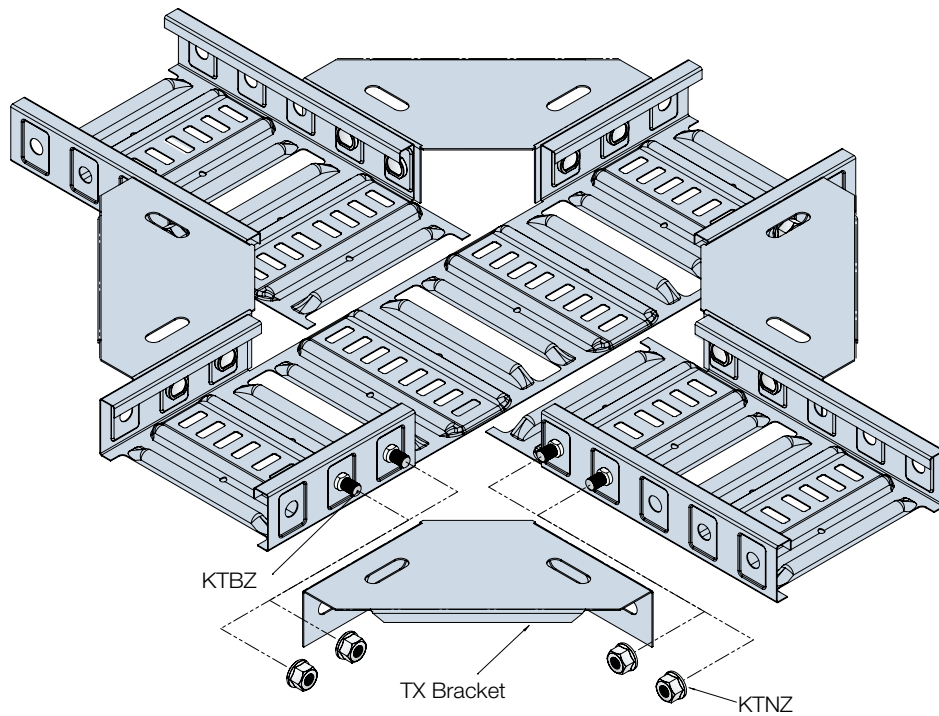
## Tee



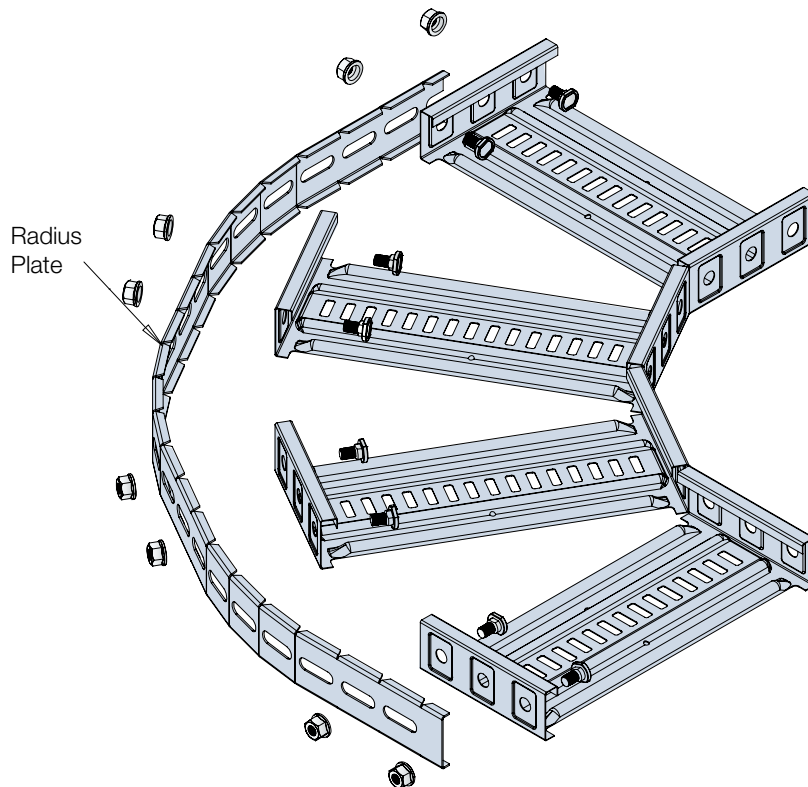
E.&O.E.

# Ladder Tray Assembly Instructions

## Cross



## Bend



NOTE: KT3 and KT5 plates and brackets are not interchangeable.

E.&O.E.



## Cable Mesh

### General Description

The Kounis Metal Industries Cable Mesh System was developed for use in commercial and industrial applications where the installer demands a cost efficient site adaptable cable management system that can offer enough strength and durability to carry light to medium duty cables whilst maintaining an economical support span.

The finished product is constructed from 3.8 mm wire of which there are two finish options; **Zinc Plated** and **Hot Dip Galvanised**. System options are

**KM54 Cable Mesh System** – 54 mm high sided tray

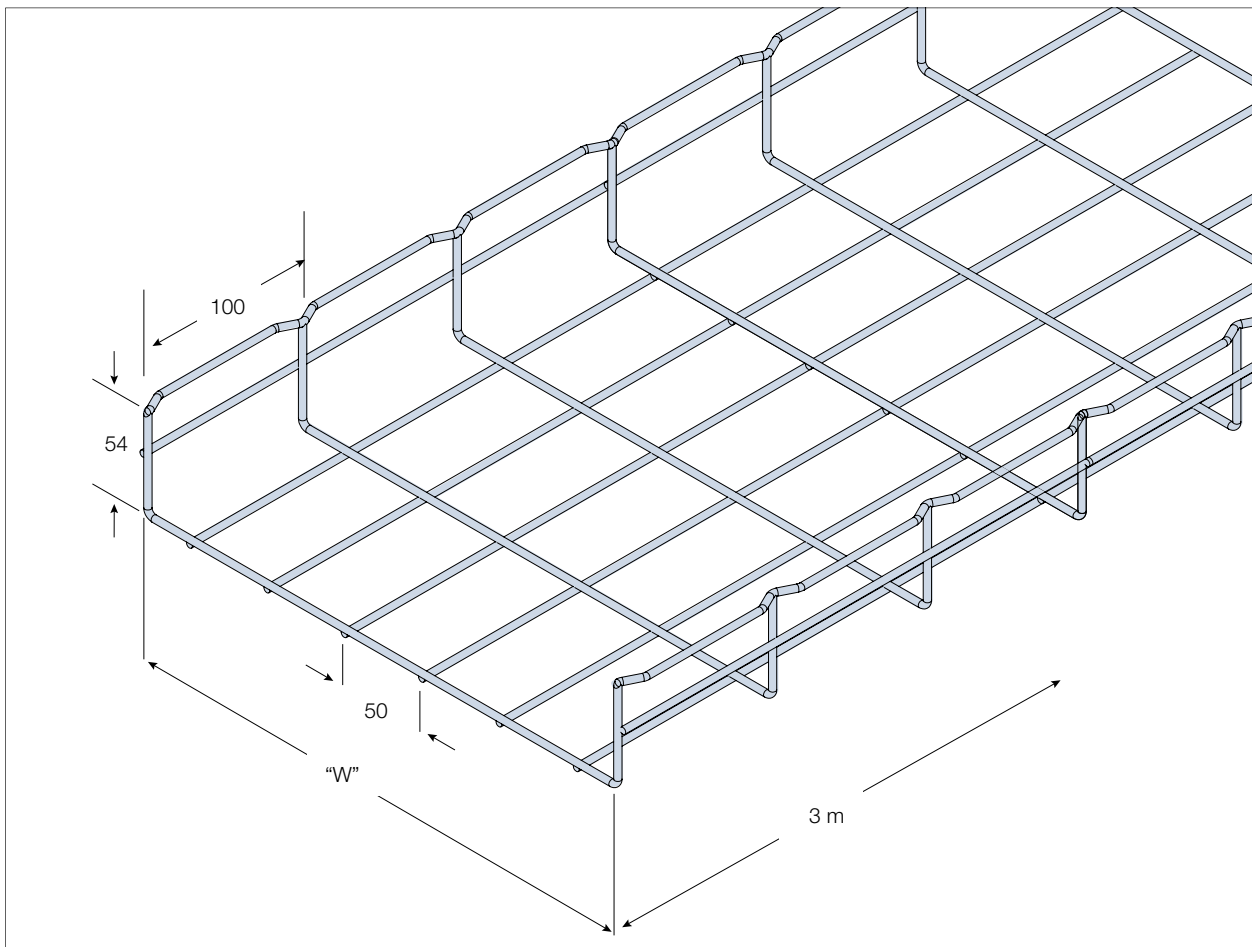
**KT104 Cable Mesh System** – 104 mm high sided tray

All of which offer the following features or options:

- 3 m length
- Site fabricated fittings for all required direction, junction or size changes
- Mesh tie off spacing at 50 mm W x 100 mm L making cable tracing and identification easy whilst enabling cable entry exit at any point
- Indented top lip wire making an all smooth edge system to ensure no damage is made to the cable when they are being installed
- Mesh spacing allows exceptional ventilation and minimises the likelihood of vermin infestation
- Tab loc joining system makes the install easy whilst eliminating the need for multiple tools
- Tab loc trapeze system eliminates the need for additional accessories making for a cost efficient install

Painted finish available on request.

## Cable Mesh – 54 mm



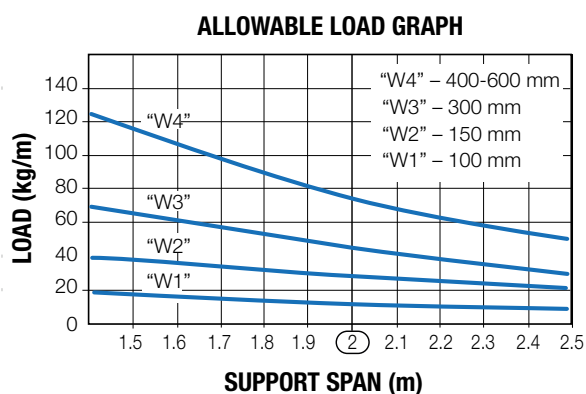
### When Ordering

DEPTH: 50 mm inside

LENGTH: 3 m

Range	Type	Size	Finish
<b>KM</b>	<b>54</b>	<b>10</b>	<b>Z</b>
KM = Cable Mesh	54 = (54 mm High Side)	10 = 100 mm 15 = 150 mm 30 = 300 mm 40 = 400 mm 50 = 500 mm 60 = 600 mm	Z = Zinc Plated H = Hot Dip Galv P = Painted

Ordering example shown Cable Mesh 54 mm High Side 100 mm Wide Zinc Plated

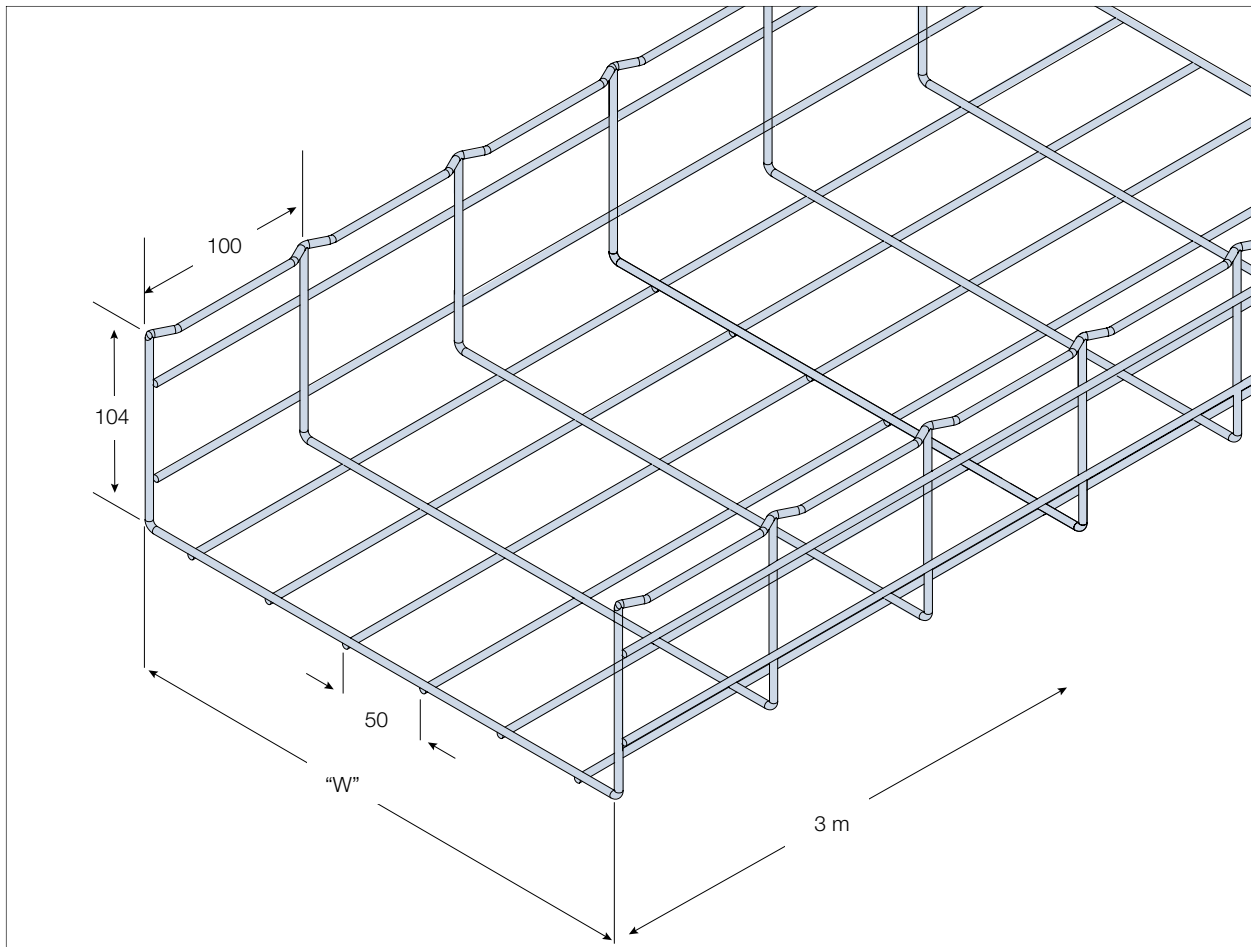


### KM 54 Tray

The graph shows kg/m loading over a given Support Span to the range Kounis Cable Mesh. The resultant Mid-span deflections given are at a ratio of 1/200 of the span. The deflections are for tray selection only and can vary with positioning of connectors or site.

E.&O.E.

## Cable Mesh – 104 mm



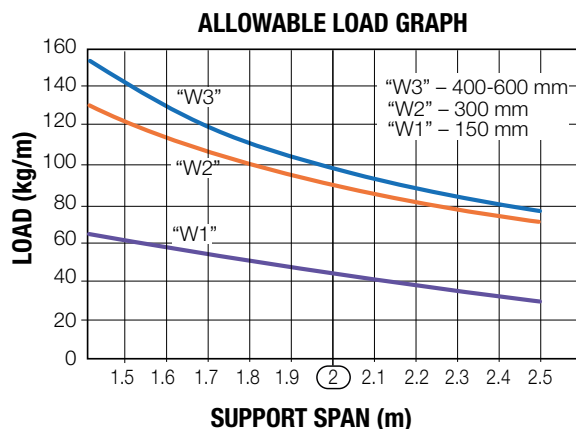
### When Ordering

Range	Type	Size	Finish
<b>KM</b>	<b>104</b>	<b>10</b>	<b>Z</b>
KM = Cable Mesh	104 = (104 mm High Side)	15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm	Z = Zinc Plated H = Hot Dip Galv P = Painted

Ordering example shown Cable Mesh 104 mm High Side 100 mm Wide Zinc Plated

DEPTH: 100 mm inside

LENGTH: 3 m



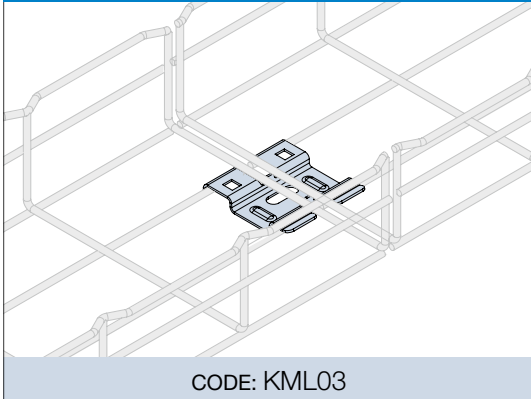
### KM 14 Tray

The graph shows kg/m loading over a given Support Span to the range Kounis Cable Mesh. The resultant Mid-span deflections given are at a ratio of 1/200 of the span. The deflections are for tray selection only and can vary with positioning of connectors or site.

E.&O.E.

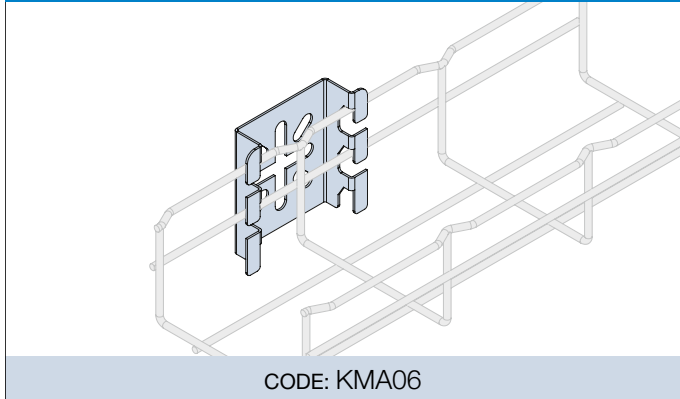
## Cable Mesh Tray Accessories & Connectors

Base Connector



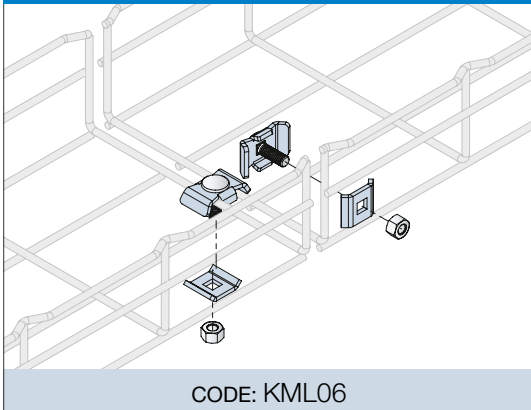
CODE: KML03

Wall Bracket / Box Mounting



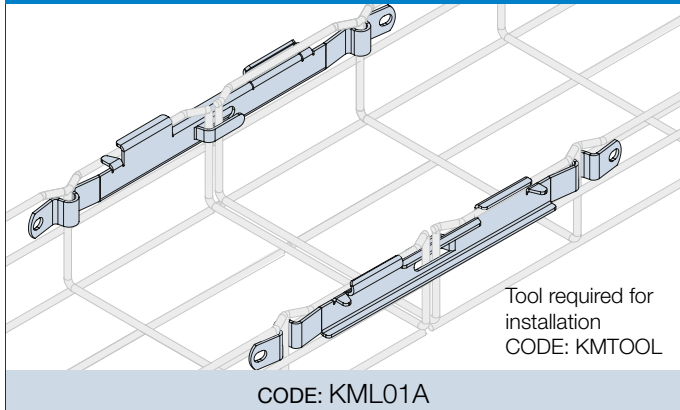
CODE: KMA06

Connector & Bend Assembly



CODE: KML06

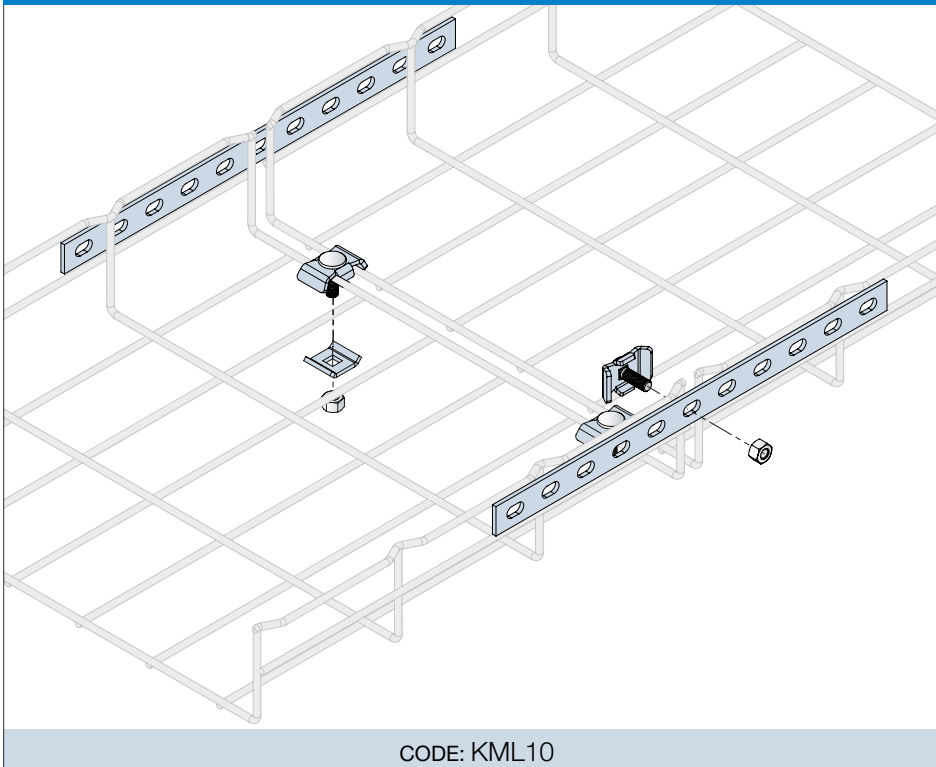
Tab Loc Connector



Tool required for  
installation  
CODE: KMTOOL

CODE: KML01A

Splice Bar Joiner



CODE: KML10

Available Finish

Suffix	Description
<b>H</b>	Hot Dip Galv
<b>Z</b>	Zinc Plated

**When Ordering** add suffix  
to end of product code

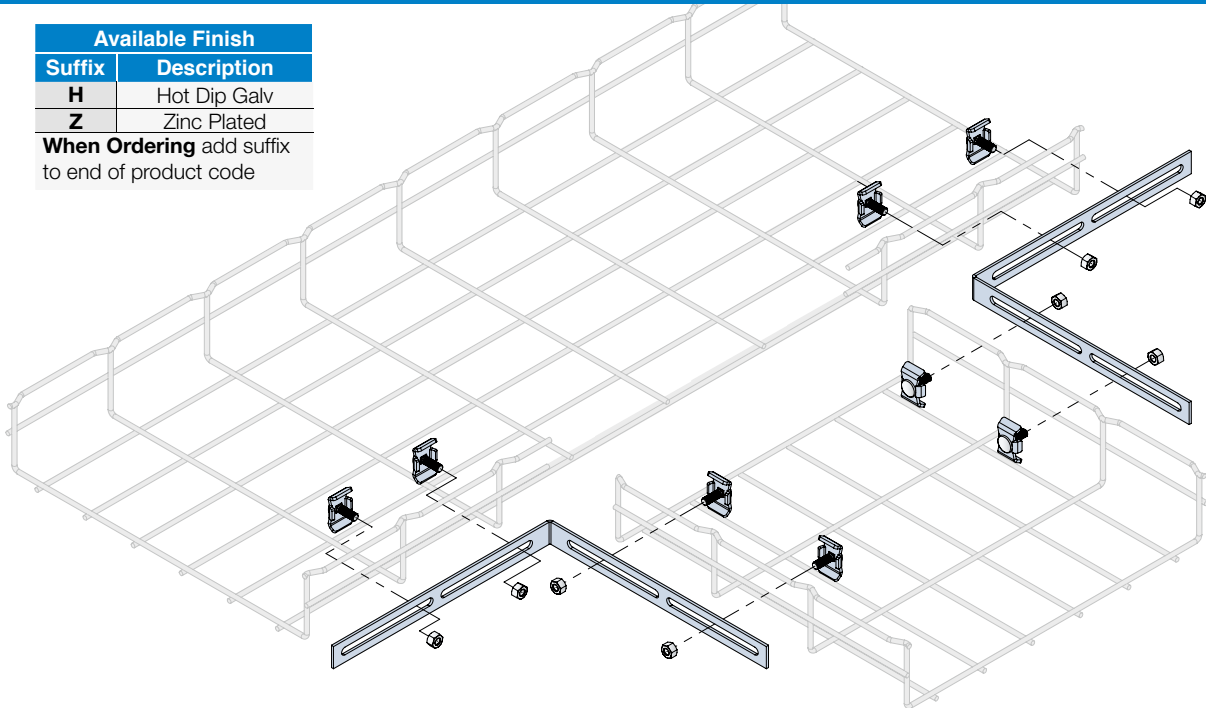
E.&O.E.

## Cable Mesh Tray Accessories & Connectors

### Tee Bar Joiner

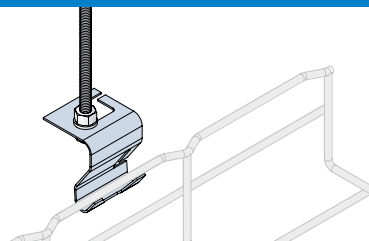
Available Finish	
Suffix	Description
<b>H</b>	Hot Dip Galv
<b>Z</b>	Zinc Plated

**When Ordering** add suffix to end of product code



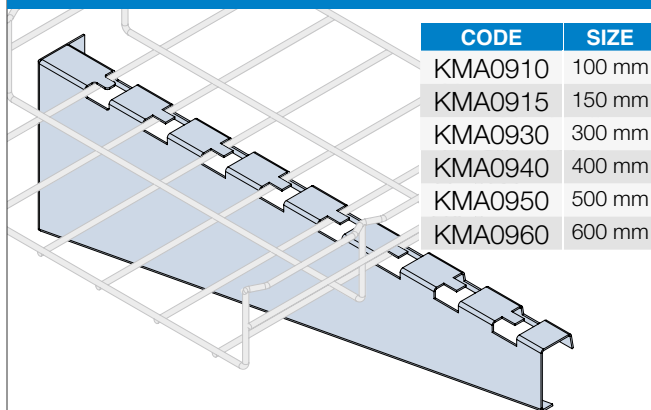
CODE: KML05A

### Overhead Hanger Clip



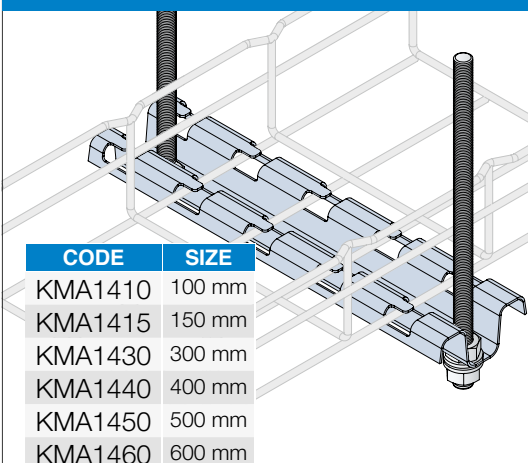
CODE: KMA19

### Slotted Wall Bracket 100-600 mm Wide



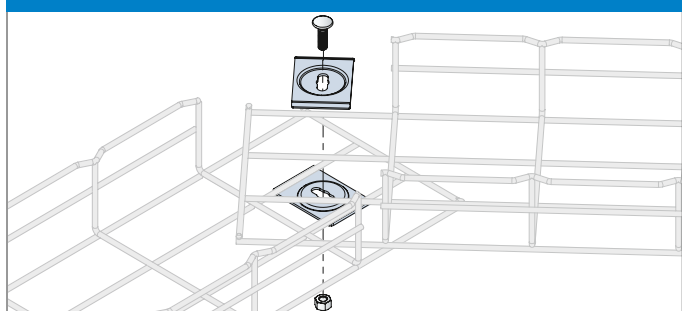
CODE: KMA09

### Trapeze Bracket 100-600 mm Wide



CODE: KMA14

### Horizontal Adjustment Hold Down Plate



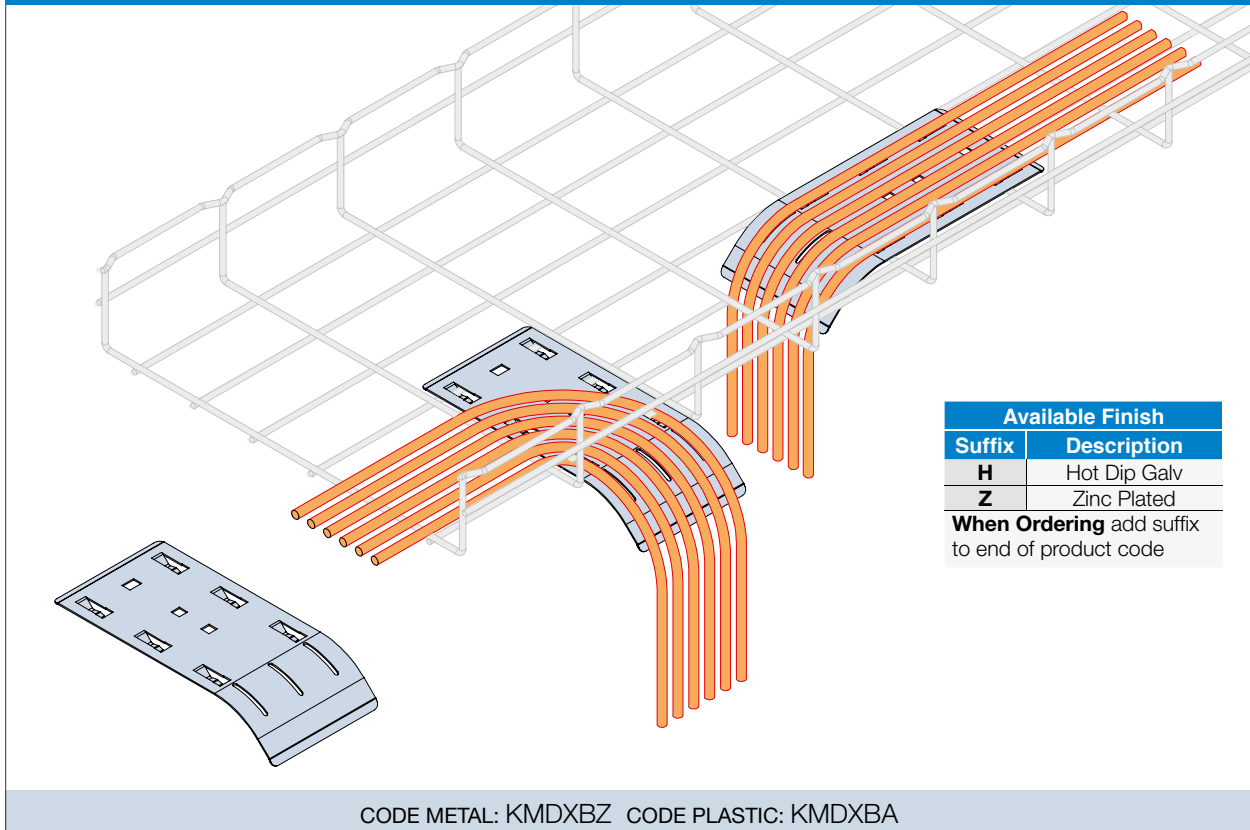
CODE: KMLDA

E.&O.E.

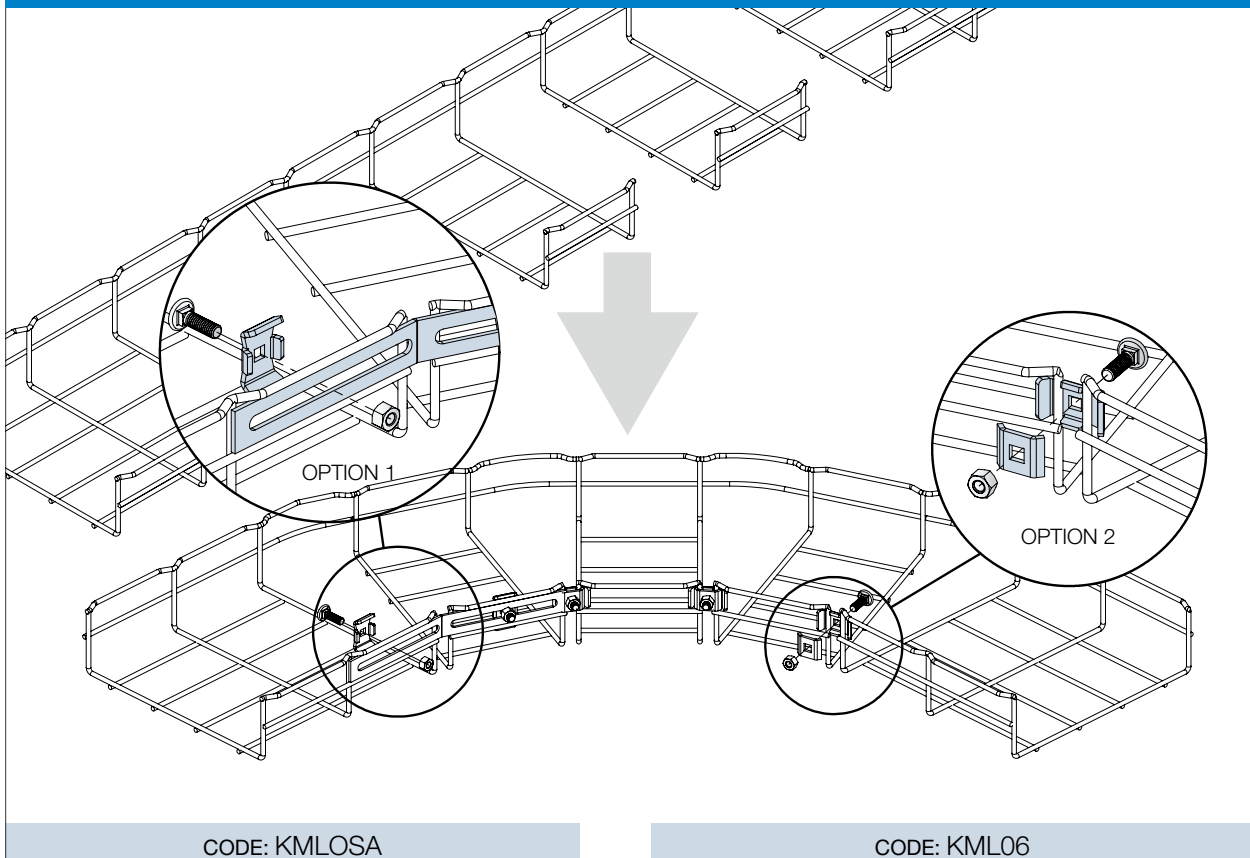


## Cable Mesh Tray Accessories & Connectors

### Cable Drop Out – Metal Or Plastic



### 90° Long Radius Bend

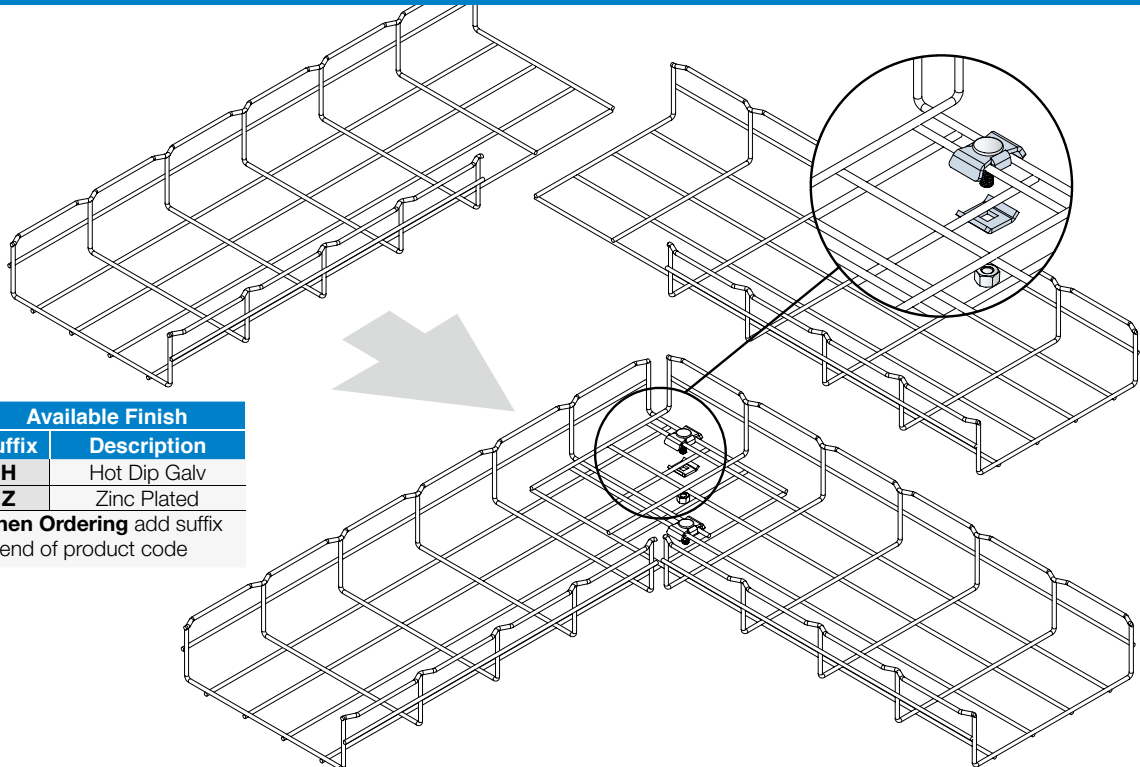


E.&O.E.

## Cable Mesh Tray Assembly Instruction

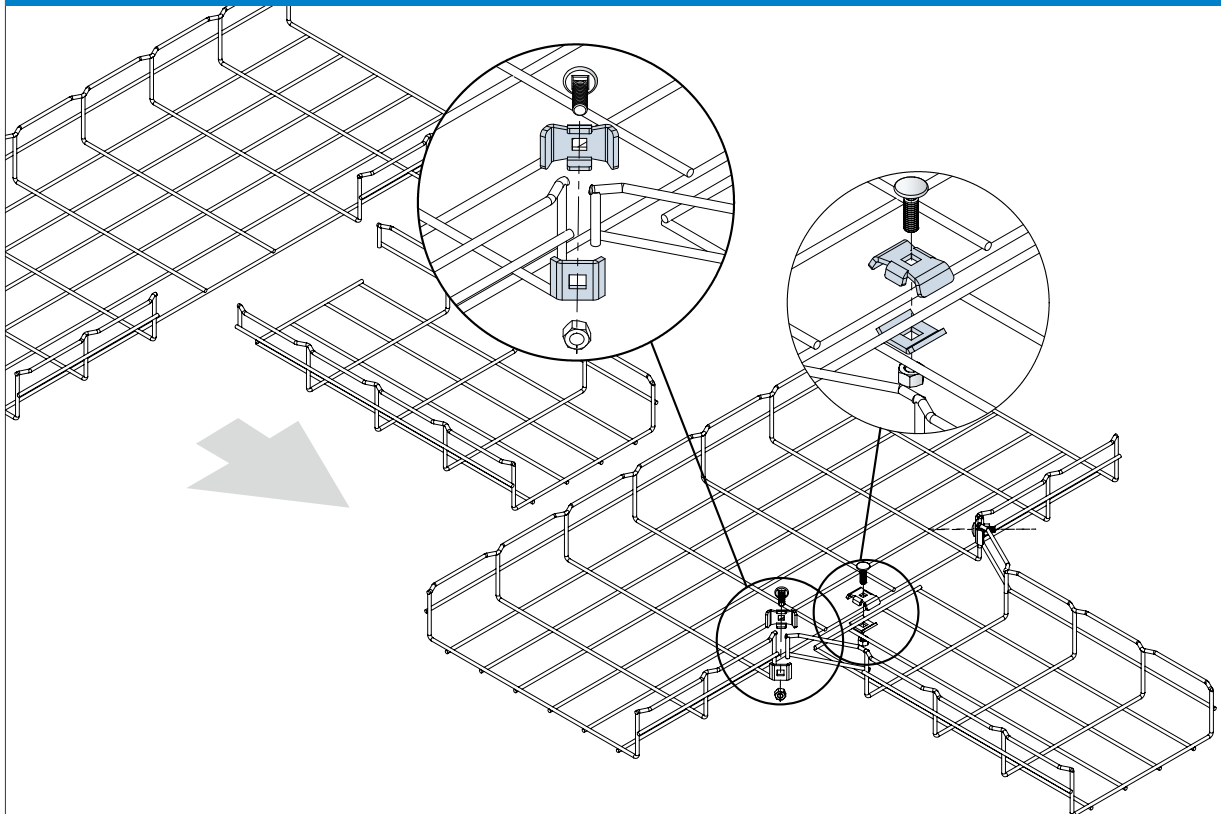
### 90° Short Radius Bend

Available Finish	
Suffix	Description
<b>H</b>	Hot Dip Galv
<b>Z</b>	Zinc Plated
<b>When Ordering</b> add suffix to end of product code	



CODE: KML06

### Tee



CODE: KML06

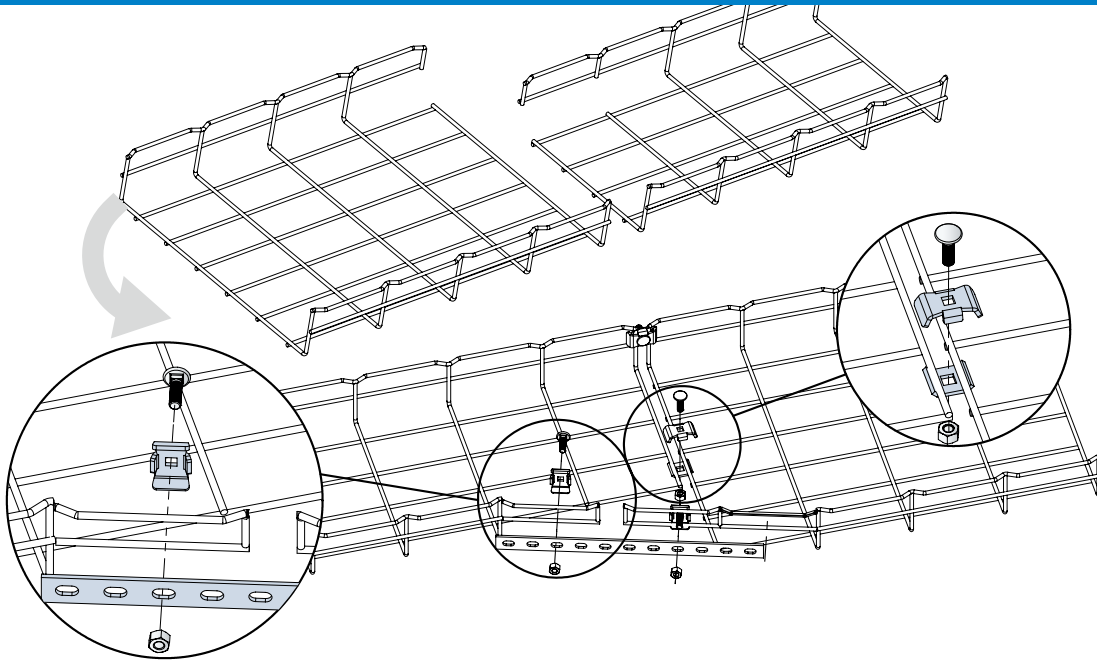
E.&O.E.

# Cable Mesh Tray Assembly Instruction

CABLE TRAY

Cable Mesh Tray  
Assembly Instruction

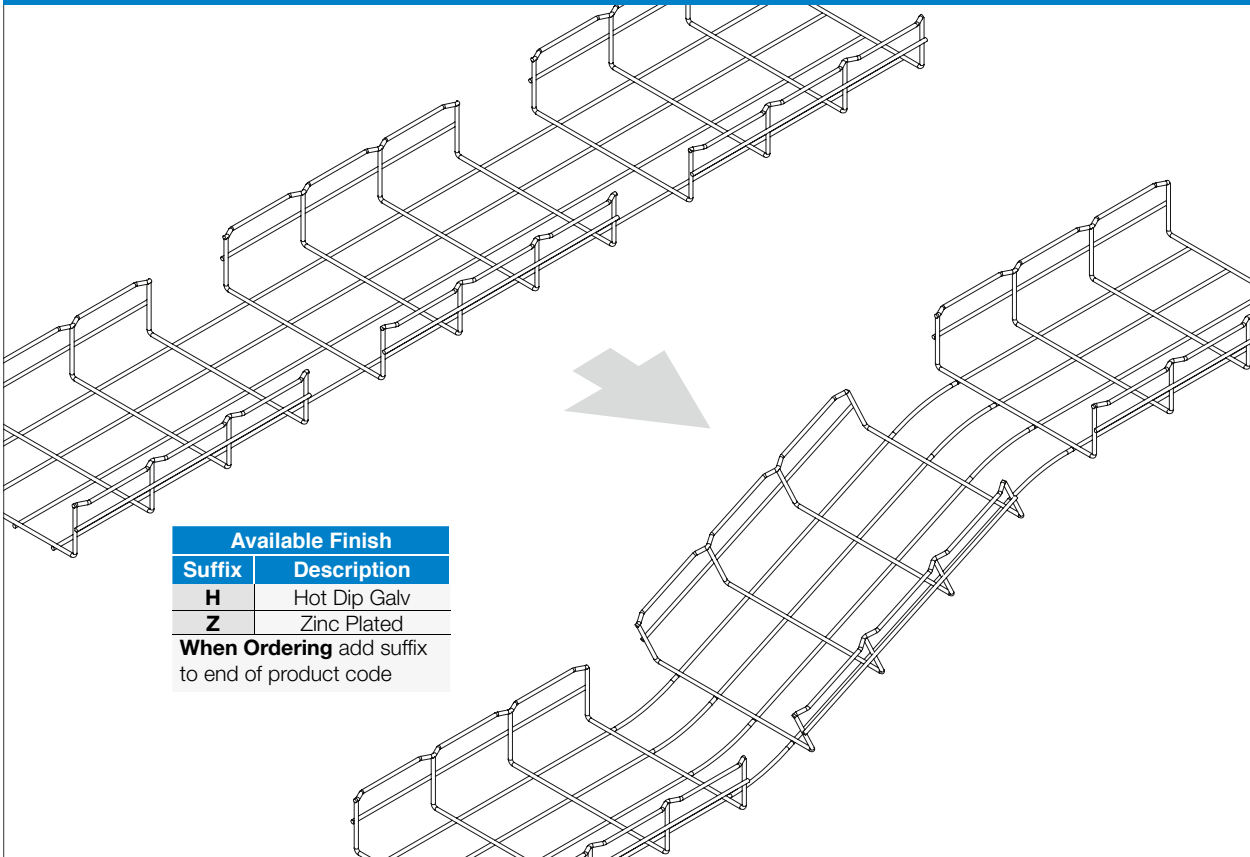
## Reducer



CODE: KML10

CODE: KML06

## Vertical Inside & Outside Bend



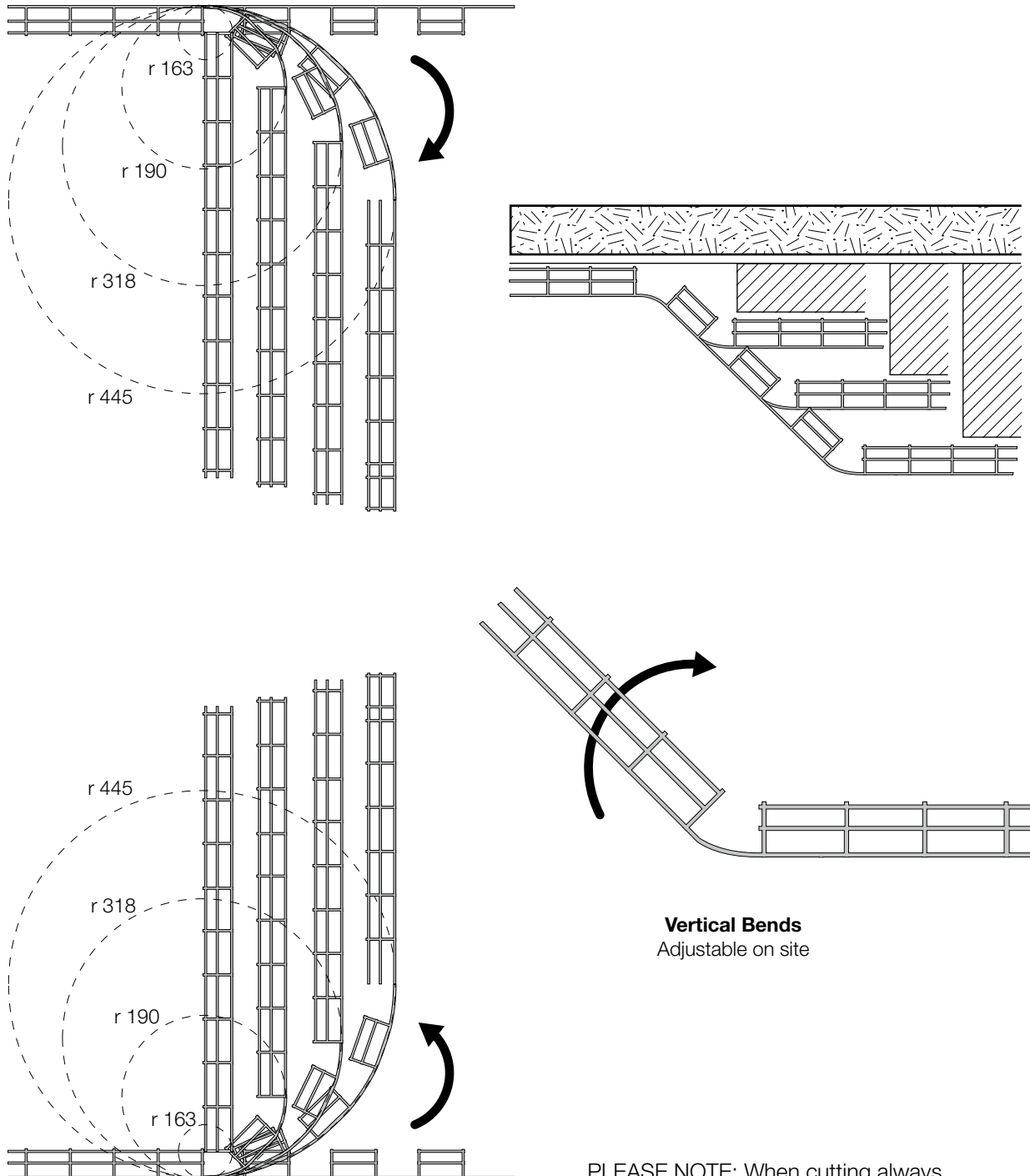
Available Finish	
Suffix	Description
<b>H</b>	Hot Dip Galv
<b>Z</b>	Zinc Plated
<b>When Ordering</b> add suffix to end of product code	

E.&O.E.



## Cable Mesh Tray Assembly Instruction

### Risers & Vertical Bends



**Vertical Bends**  
Adjustable on site

PLEASE NOTE: When cutting always keep the remaining sharp edge away from the inside of the tray.

Always use nuts on the outside of trays.

E.&O.E.

# Cable Mesh Tray Assembly Instruction

Wire trays can easily be formed into angles by simply cutting on-site the bottom and side wires. Cut the tray wires as shown on page 2:27 in the pattern belows. Angles such as 90° Short or Large Radius Bends, Tees, crosses, Reducers and Risers are easily formed on-site using standard wire trays, accessories and fixings.

90° Bends – Short Radius



WIDTH OF TRAY	INTERNAL RADIUS mm	SIZE L x L mm	FIXINGS PER BEND



WIDTH OF TRAY	INTERNAL RADIUS mm	SIZE L x L mm	FIXINGS PER BEND



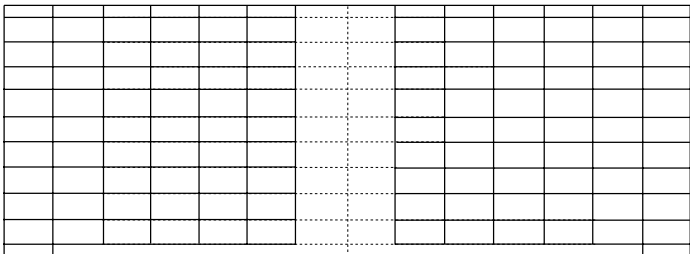
WIDTH OF TRAY	INTERNAL RADIUS mm	SIZE L x L mm	FIXINGS PER BEND



WIDTH OF TRAY	INTERNAL RADIUS mm	SIZE L x L mm	FIXINGS PER BEND



WIDTH OF TRAY	INTERNAL RADIUS mm	SIZE L x L mm	FIXINGS PER BEND



WIDTH OF TRAY	INTERNAL RADIUS mm	SIZE L x L mm	FIXINGS PER BEND



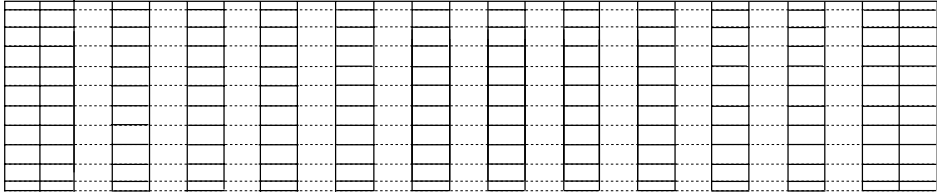
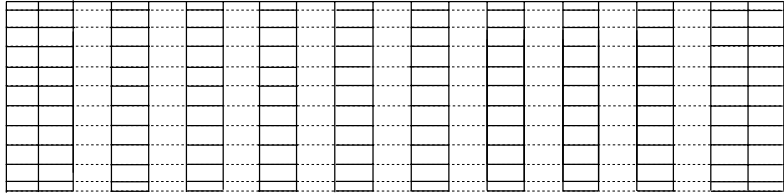
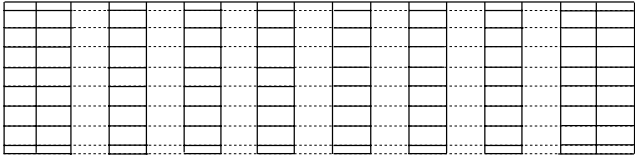
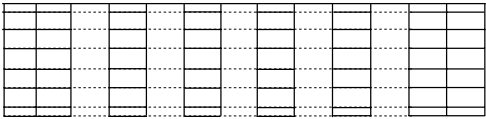
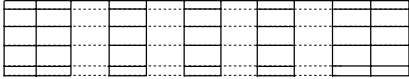
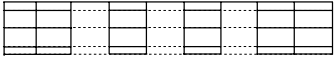

WIDTH OF TRAY	INTERNAL RADIUS mm	SIZE L x L mm	FIXINGS PER BEND

E.&O.E.

# Cable Mesh Tray Assembly Instruction

Wire trays can easily be formed into angles by simply cutting on-site the bottom and side wires. Cut the tray wires as shown on page 2:27 in the pattern belows. Large Radius Bends, are easily formed on-site using standard wire trays, accessories and fixings.

90° Bends – Large Radius



WIDTH OF TRAY	INTERNAL RADIUS mm	SIZE L x L mm
---------------	-----------------------	---------------------

WIDTH OF TRAY	INTERNAL RADIUS mm	SIZE L x L mm
---------------	-----------------------	---------------------

WIDTH OF TRAY	INTERNAL RADIUS mm	SIZE L x L mm
---------------	-----------------------	---------------------

WIDTH OF TRAY	INTERNAL RADIUS mm	SIZE L x L mm
---------------	-----------------------	---------------------

WIDTH OF TRAY	INTERNAL RADIUS mm	SIZE L x L mm
---------------	-----------------------	---------------------

WIDTH OF TRAY	INTERNAL RADIUS mm	SIZE L x L mm
---------------	-----------------------	---------------------

WIDTH OF TRAY	INTERNAL RADIUS mm	SIZE L x L mm
---------------	-----------------------	---------------------

E.&O.E.

[www.kounis.com.au](http://www.kounis.com.au)

Page 2:29

CABLE TRAY

Cable Mesh Tray  
Assembly Instruction

# Fire Rated Ladder Tray System – AS/NZS 3013:2005

## General Description

The Kounis Metal Industries' Fire Rated and Patented Ladder Tray Systems are the most cost effective and versatile systems on the market today. Invented and developed after extensive in-house and laboratory testing by qualified engineers, the systems fully comply with Standards Australia AS/NZS 3013:2005, Appendix C, Classification WS5X – 2 hour fire rating up to 1050 degrees Celsius.

The systems offer a superior 25-50% higher loading rate compared to other fire rated products on the market today. Importantly the Kounis Fire Rated Systems can be installed in tight ceiling spaces where other products on the market will simply not fit.

The foundation of the fire rated systems is the superior, robustly engineered standard Kounis Ladder Tray with its unique, extra ribbed design that is specifically intended to offer a strong point load with less cross sectional deflection which cannot be offered by any other supplier. In addition, the ladder tray is supplied with custom designed stringers which are fastened to the tray to provide extra strength and decrease longitudinal deflection.

The invention offers the advantage of normal installation for continuous non-fire rated runs using the standard Kounis Ladder Tray Systems and can be retro fitted with the patented support system where fire rating is required. This reduces the requirement for special, expensive, single purpose products that are not transferable to the next installation where fire rated support systems may not be specified.

System options are:

### KT3 Ladder Tray System

- 3 m length
- 50 mm high sided tray
- Uniform load rating 50 kg per metre
- Support span 1 metre

### KT5 Ladder Tray System

- 3 m length
- 85 mm high sided tray
- Uniform load rating 75 kg per metre
- Support span 1 metre

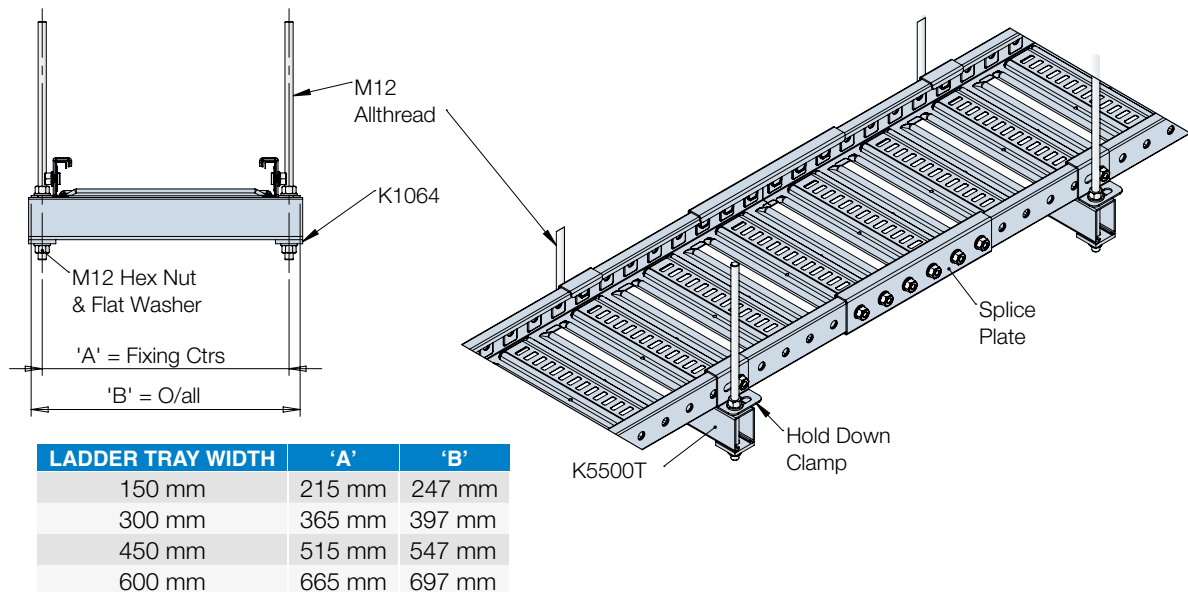
Both systems have fire rated splice plates and trapeze supports used in conjunction with 12 mm threaded rod.

- Must be used as a complete system to achieve fire rating.
- Ends of runs must be supported.

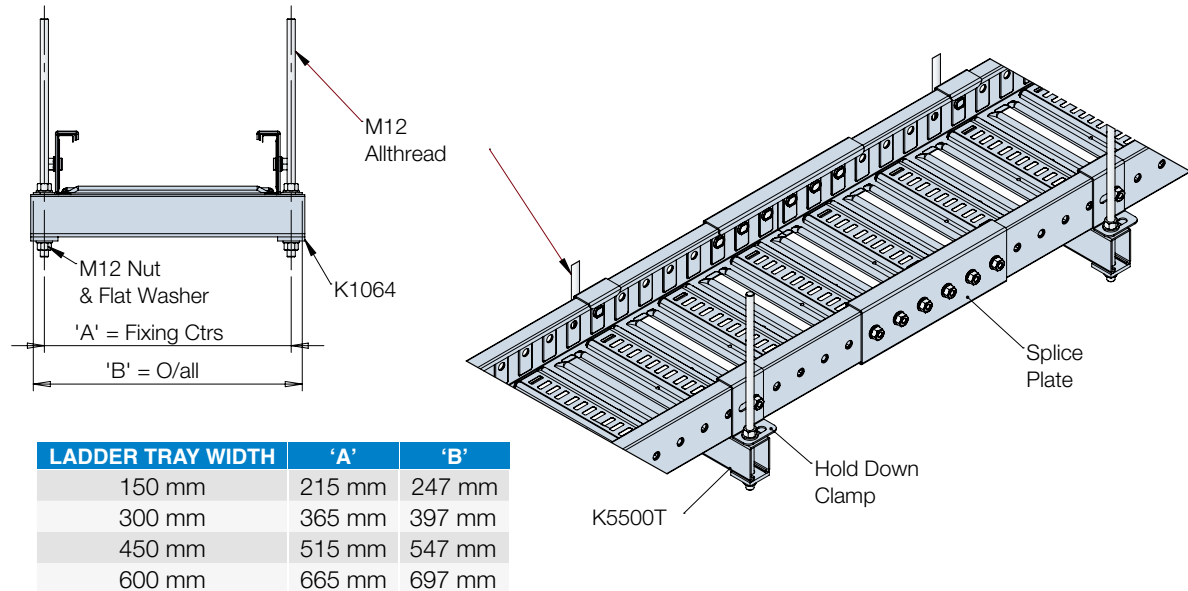
E.&O.E.

# Fire Rated Ladder Tray System – AS/NZS 3013:2005

## Fire Rated Ladder Tray KT3



## Fire Rated Ladder Tray KT5



## When Ordering

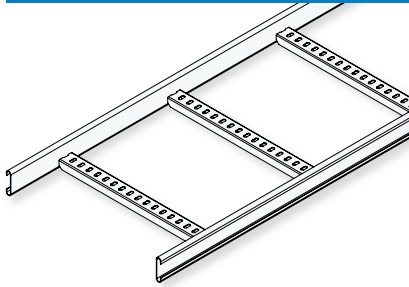
Range	Type	Size	Finish
<b>KTFR</b>	<b>3</b>	<b>15</b>	<b>G</b>
KTFR = Ladder Tray Fire Rated	3 = 50 mm High Side	15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm SP = Splice Plate HDC = Hold Down Clamp	G = Galvabond H = Hot Dip Galv

Ordering example shown is Ladder Tray Fire Rated 50 mm High Side 150 mm Wide Galvabond

## Notes

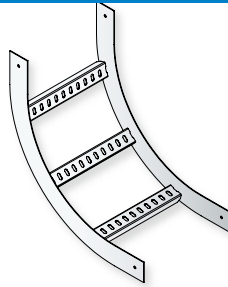
## SECTION 3: Cable Ladder

Cable Ladder Type 2/30



> 3:3

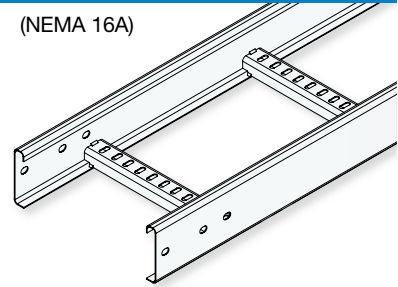
2/30 Fittings



> 3:4-3:6

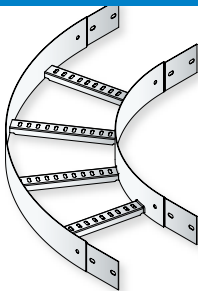
Cable Ladder Type 3/50

(NEMA 16A)



> 3:7

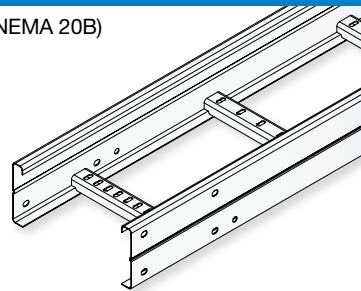
3/50 Fittings



> 3:8-3:10

Cable Ladder Type 4/70L

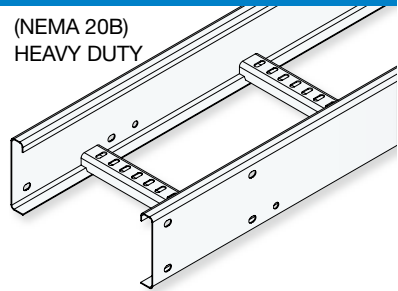
(NEMA 20B)



> 3:11

Cable Ladder Type 4/70

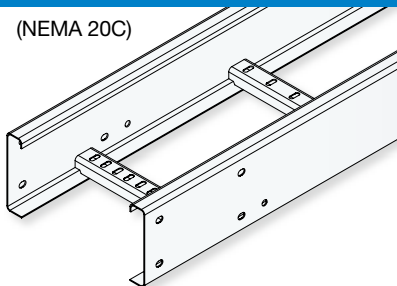
(NEMA 20B)  
HEAVY DUTY



> 3:12

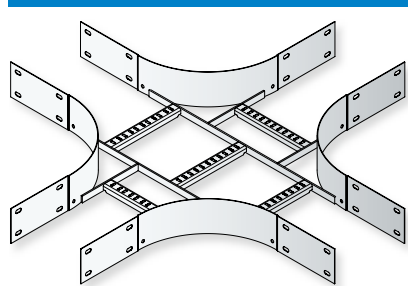
Cable Ladder Type 5/112

(NEMA 20C)



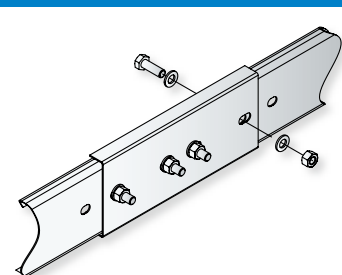
> 3:17

4/70 & 5/112 Fittings



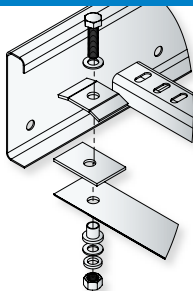
> 3:13-3:16

Splice Plates



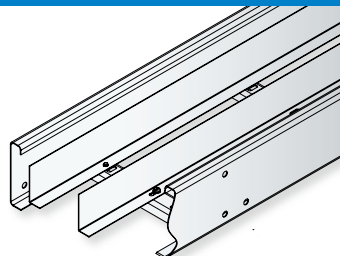
> 3:18

Hold Down Clamps



> 3:19

Barrier Strip



> 3:20

E.&O.E.

# Cable Ladder Hot Dip Galvanised

## General Description

The Kounis Metal Industries Hot Dip Galvanised Cable Ladder Systems are developed for use in commercial, industrial & mining applications.

Its superior support strength and open ventilation allows for effortless installation of electrical cables and or pipe work.

The finished product is constructed from mild Steel side rail sections and rungs welded at 300 mm continuous spacings, surface treatment is post production Hot Dip Galvanising.

This product range comprises of five system types to cover a wide range of requirements; **Type 2/30** 65 mm Side, **Type 3/50** 100 mm Side (NEMA 16A), **Type 4/70L** 1.6 mm 130 mm Side (NEMA 20B), **Type 4/70** 2.0 mm 130 mm Side (NEMA 20B) and **Type 5/112** 146 mm Side (NEMA 20C). All of which offer the following standard features:

- 6 m length
- Self-splicing Bend, Riser, Tee & Cross Fittings
- Rail in or rail out option (Type 2/30 is only available in Rail Out)
- Earthing holes at point of connection on straight lengths as well as fittings
- Channel type rung offering superior strength
- 25mm rung tie off centres to allow maximum tie off options
- Engineer certification to withstand certain cyclonic conditions (only available for type 4/70 & 5/112, minimum installation requirements apply)

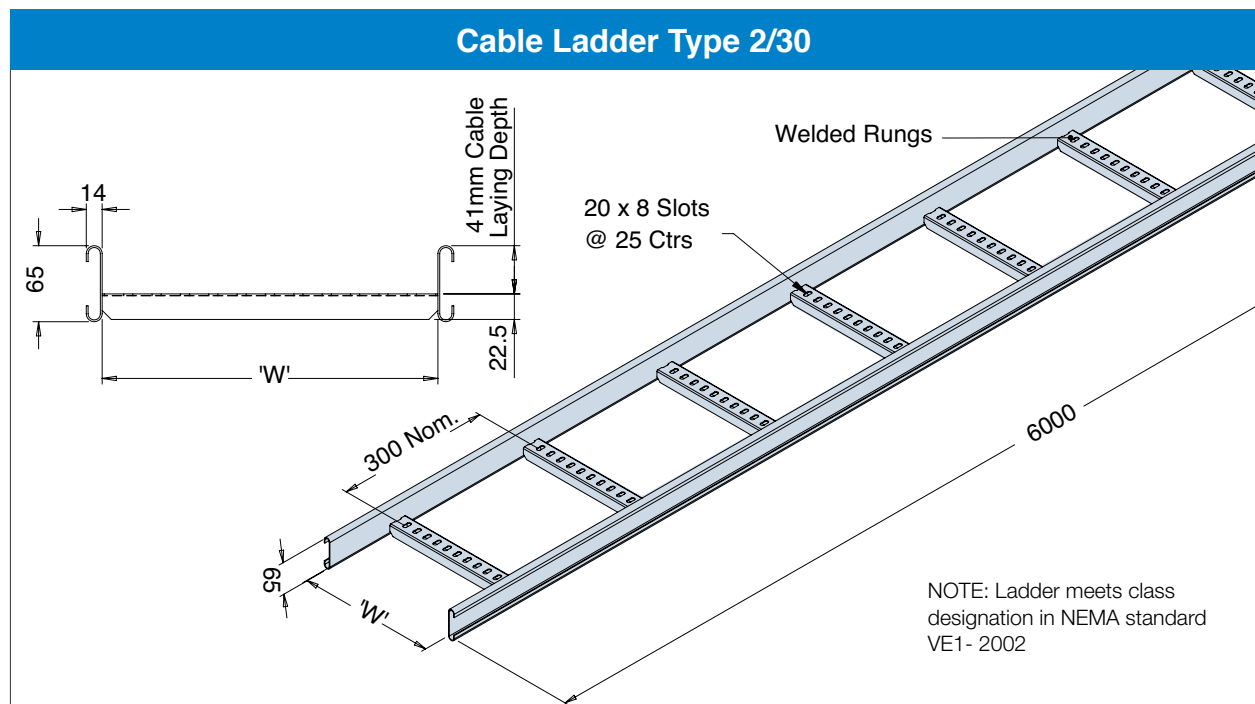
All fitting radius measurements are to the internal side rail, stock standard radius varies depending on cable ladder system type and branch standard. All other listed radius options are made to firm order.

Load capacities and deflection graphs are published by type and can be found on the straight length page for the associated cable ladder system.

Tested to NEMA VE1 Standards, Full engineering details are available on request.

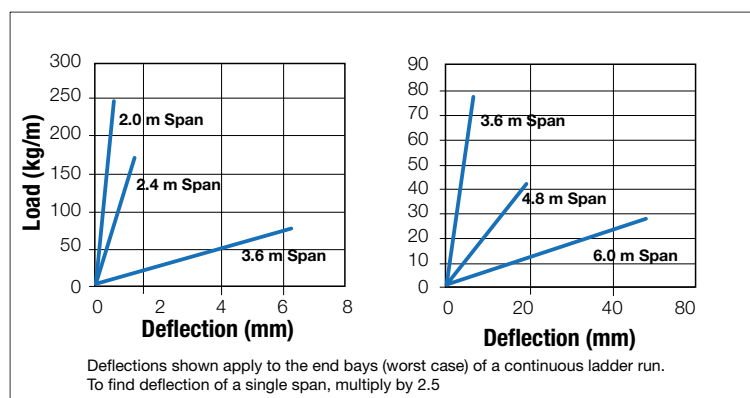
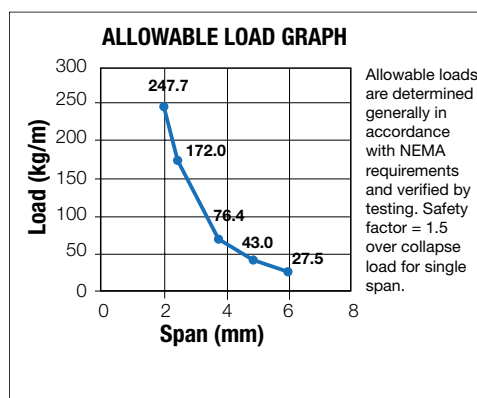


# Cable Ladder Type 2/30 1.6 mm Steel



## Specification

<b>Class Designation:</b>	Cable ladder – light duty type 2/30
<b>Material:</b>	Sheet steel
<b>Finish:</b>	Hot dip galvanized after fabrication to AS/NZS 4680 i.e. 390 gm /m <sup>2</sup> zinc approx. 55 µm
<b>Rung Spacing:</b>	300 mm spacing with slotted rungs standard.
<b>Inside Depth:</b>	40 mm cable laying depth
<b>Stock Lengths:</b>	6000 mm standard joining together by quick fix splice plate with no side rail holes.
<b>Stock Widths:</b>	150 mm, 300 mm, 450 mm & 600 mm standard other widths available on request.
<b>Fittings:</b>	A full range of fittings are available e.g. bends, risers, tees, crosses & reducers.
<b>Radius:</b>	300 mm radius for standard fittings. Other radius fittings are available and made to firm orders.
<b>Accessories:</b>	Flat or peak covers available for ladders & fittings, barrier strips and hold down clamps.



## When Ordering

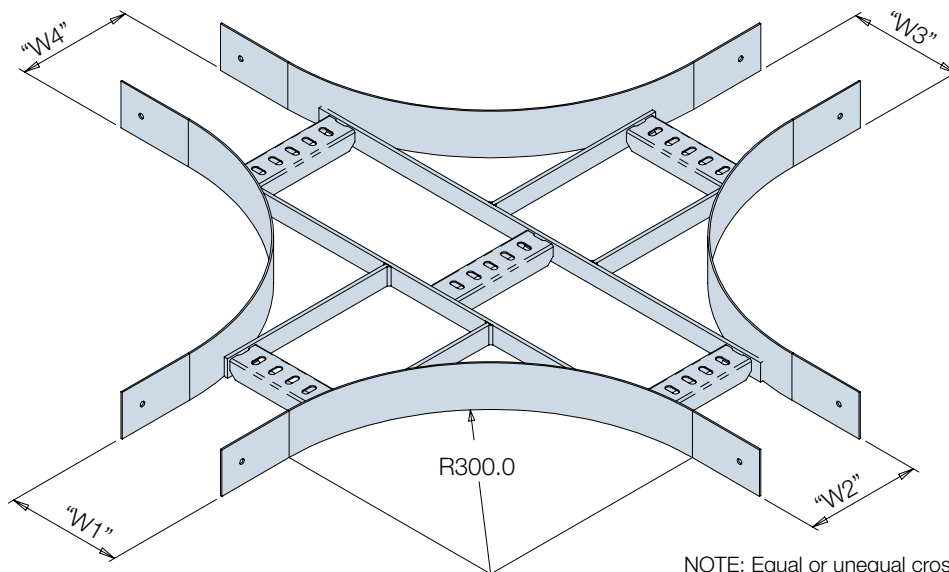
Range	Type	Size	Finish
<b>2C</b>	<b>L</b>	<b>15</b>	<b>H</b>
2C = 2/30 65 mm High Side 1.6mm Gauge	L = Straight Length	15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm 75 = 750 mm 90 = 900 mm	H = Hot Dip Galv P = Painted

Ordering example shown 2/30 Cable Ladder 150 mm Wide Hot Dip Galvanised

E.&O.E.

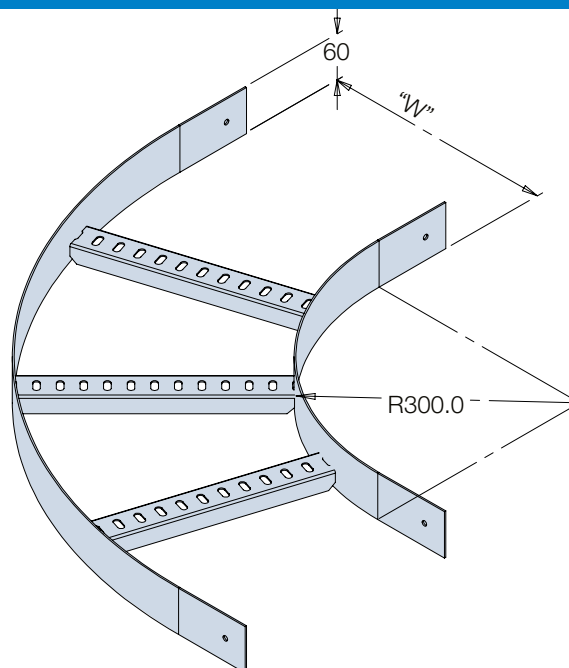
## Cable Ladder 2/30 Fittings

### Cross



NOTE: Equal or unequal crosses can be supplied. When ordering state widths W1 x W2 x W3 x W4

### Bend



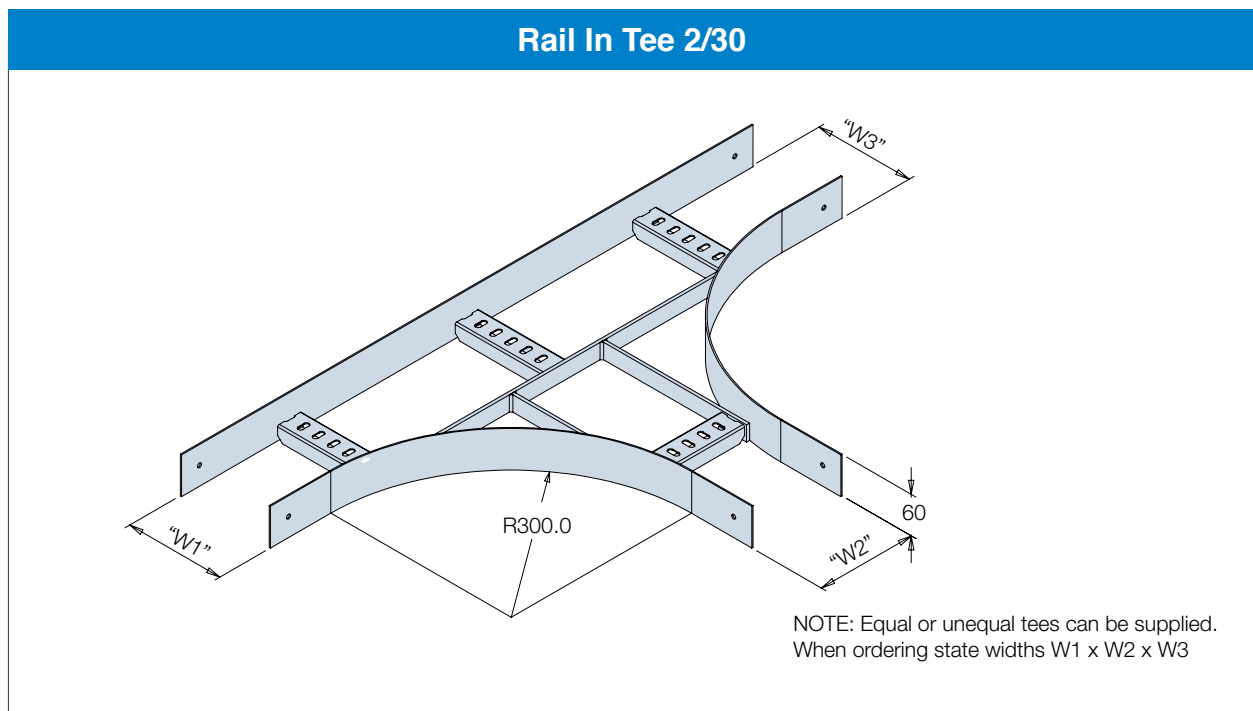
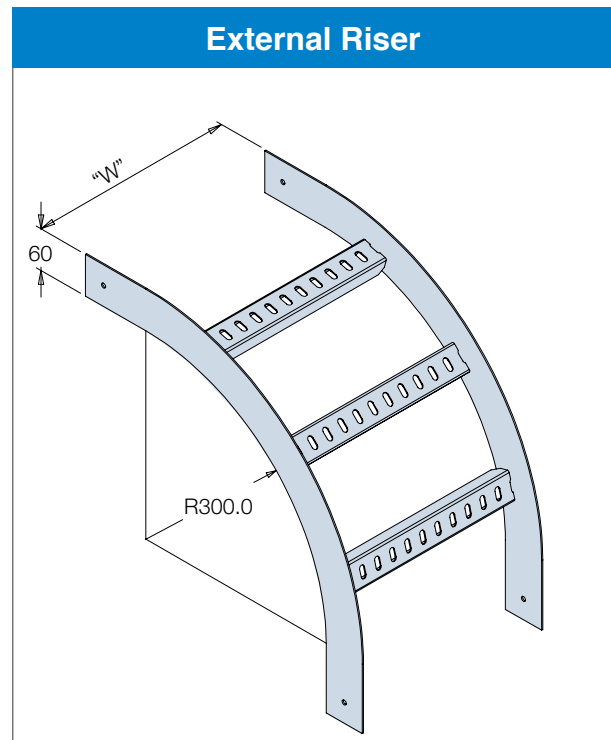
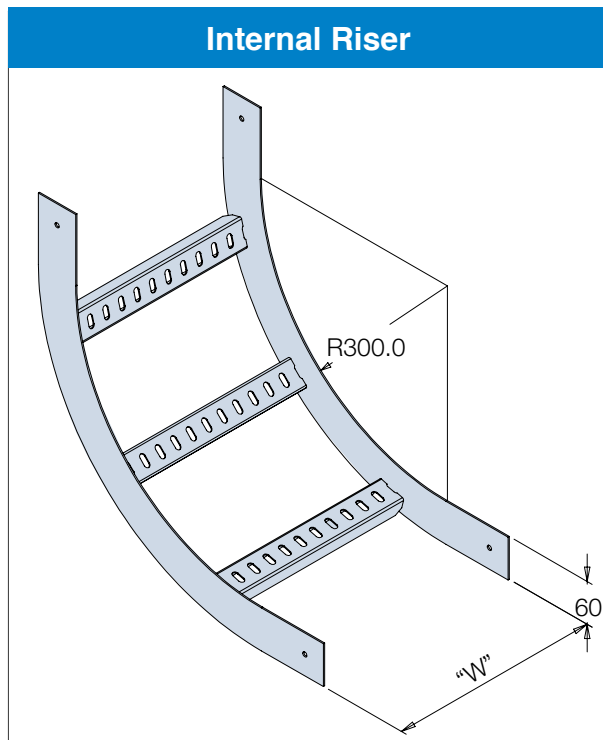
### When Ordering

Range	Type	Size	Finish	Radius
<b>2C</b>	<b>B</b>	<b>15</b>	<b>H</b>	<b>3</b>
2C = 2/30 65 mm High Side 1.6 mm Gauge	B = Bend C = Cross	15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm 75 = 750 mm 90 = 900 mm	H = Hot Dip Galv P = Painted	3 = 300 mm

Ordering example shown 2/30 Cable Ladder Bend 150 mm Wide Hot Dip Galvanised 300 mm Radius

E.&O.E.

## Cable Ladder 2/30 Fittings



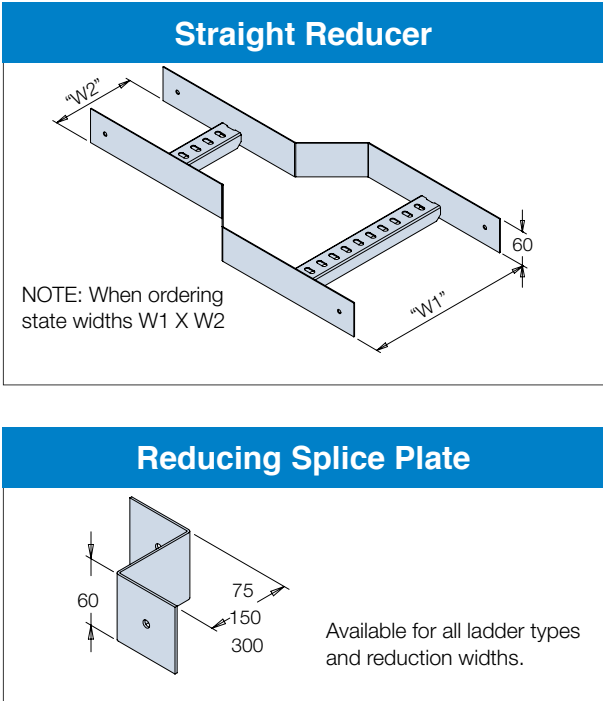
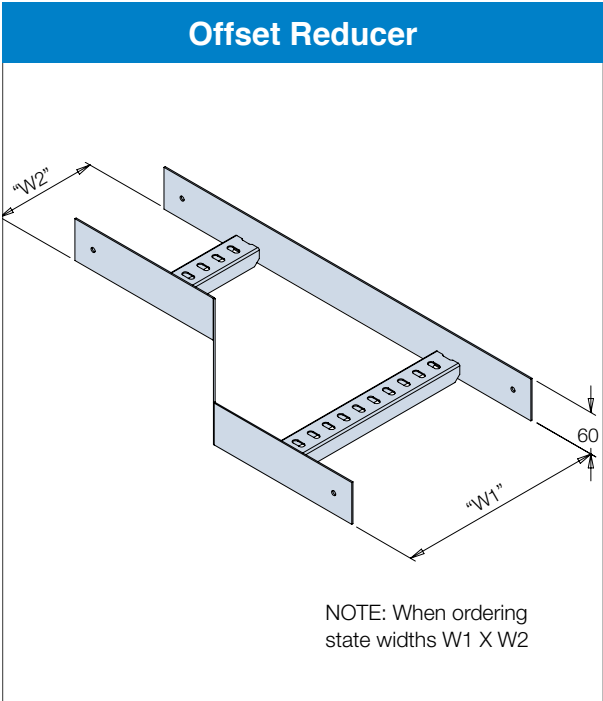
### When Ordering

Range	Type	Size	Finish	Radius
<b>2C</b> 2C = 2/30 65 mm High Side 1.6 mm Gauge	<b>RI</b> RI = Internal Riser  RX = External Riser T = Tee	<b>15</b> 15 = 150 mm  30 = 300 mm 45 = 450 mm 60 = 600 mm 75 = 750 mm 90 = 900 mm	<b>H</b> H = Hot Dip Galv  P = Painted	<b>3</b> 3 = 300 mm

Ordering example shown 2/30 Cable Ladder Internal Riser 150 mm Wide Hot Dip Galvanised 300 mm Radius

E.&O.E.

# Cable Ladder 2/30 Fittings

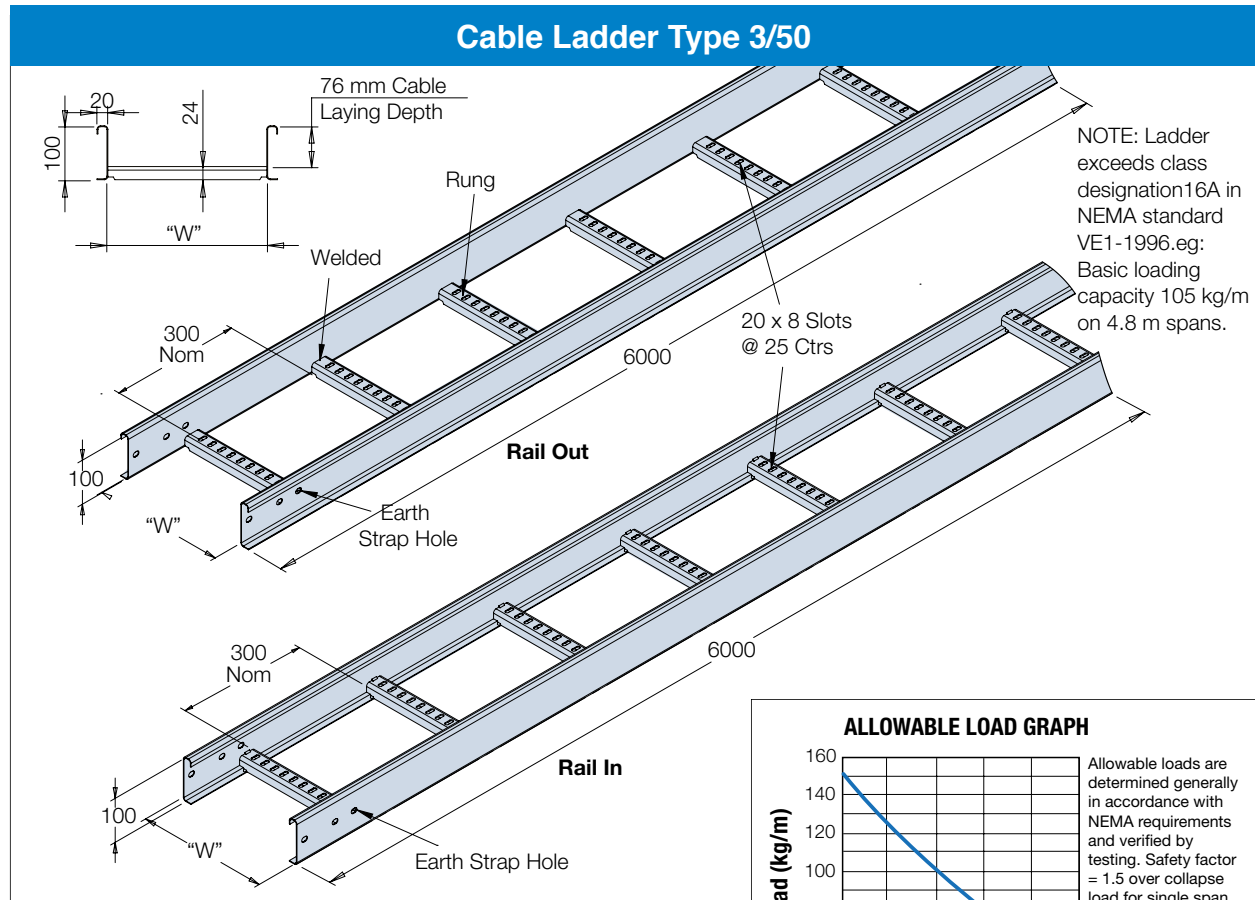


## When Ordering

Range	Type	Size	Finish
<b>2C</b>	<b>SR</b>	<b>15</b>	<b>H</b>
2C = 2/30 65 mm High Side 1.6 mm Gauge	SR = Straight Reducer RR = Right Reducer LR = Left Reducer PR = Reducing Splice (i.e. 75mm, 150mm & 300mm)	3015 = 300 to 150 mm 4530 = 450 to 300 mm 6045 = 600 to 450 mm 7560 = 750 to 600 mm 9075 = 900 to 750 mm	H = Hot Dip Galv P = Painted

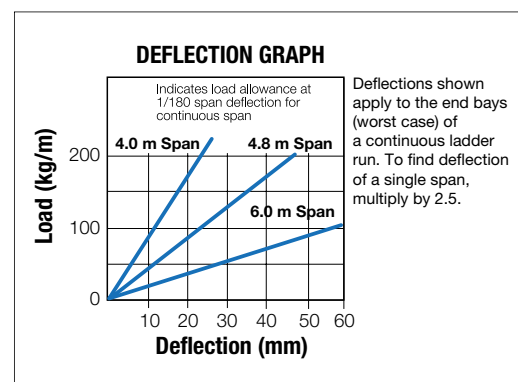
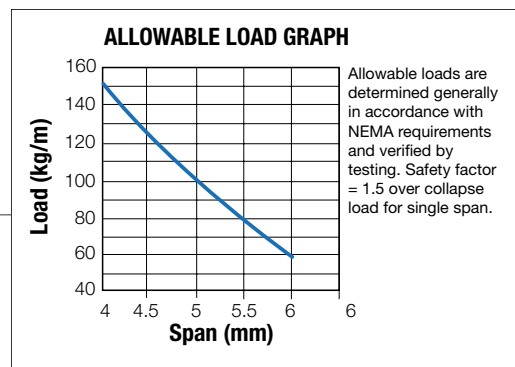
Ordering example shown 2/30 Cable Ladder Straight Reducer 300 mm to 150 mm Wide Hot Dip Galvanised

# Cable Ladder Medium To Heavy Duty Type 3/50 (NEMA 16A) 1.6 mm Steel



## Specification

<b>Class Designation:</b>	Cable ladder-medium to heavy duty type 3/50 NEMA classification 16A.
<b>Material:</b>	Steel sheet.
<b>Finish:</b>	Hot dipped galvanised after fabrication to AS/NZS 4680 i.e. 390 gm/m <sup>2</sup> zinc, approx. 55µm.
<b>Rung Spacing:</b>	300 mm spacings with slotted rungs standard.
<b>Inside Depth:</b>	76 mm cable laying depth.
<b>Stock Length:</b>	6000 mm standard, joining together by full strength splice plates.
<b>Stock Widths:</b>	150 mm, 300 mm, 450 mm & 600 mm standard other widths available by request.
<b>Fittings:</b>	A full range of fittings are available e.g. bends, risers, tees, crosses & reducers.
<b>Radius:</b>	300 mm radius standard for rail in. 450 mm radius standard for rail out. Other radii available by request.
<b>Accessories:</b>	Flat or peak covers available for ladders & fittings, barrier strips and hold down clamps.



## When Ordering

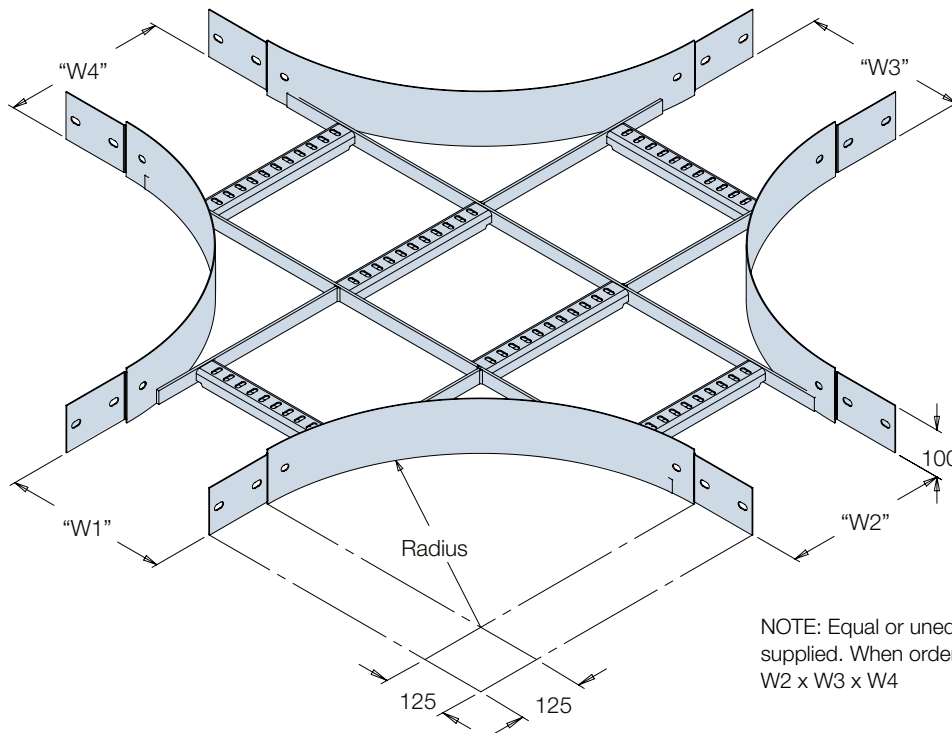
Range	Type	Size	Finish	Rail Direction
<b>3C</b> 3C = 3/50 100 mm High Side 1.6 mm Gauge	<b>L</b> L = Straight Length	<b>15</b> 15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm 75 = 750 mm 90 = 900 mm	<b>H</b> H = Hot Dip Galv P = Painted	<b>RI</b> RI = Rail In RO = Rail Out

Ordering example shown 3/50 Cable Ladder 150 mm Wide Hot Dip Galvanised Rail In

E.&O.E.

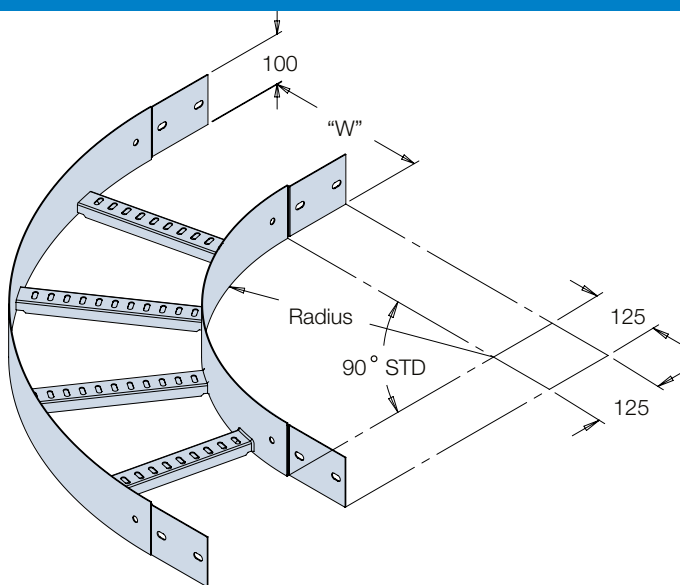
## Cable Ladder 3/50 Fittings

### Cross



NOTE: Equal or unequal crosses can be supplied. When ordering state widths W1 x W2 x W3 x W4

### Bend



#### Standard Fitting Radius

East Coast – 450 mm Radius  
WA – 300 mm Radius  
Other Radius up to 1200 mm are made to order

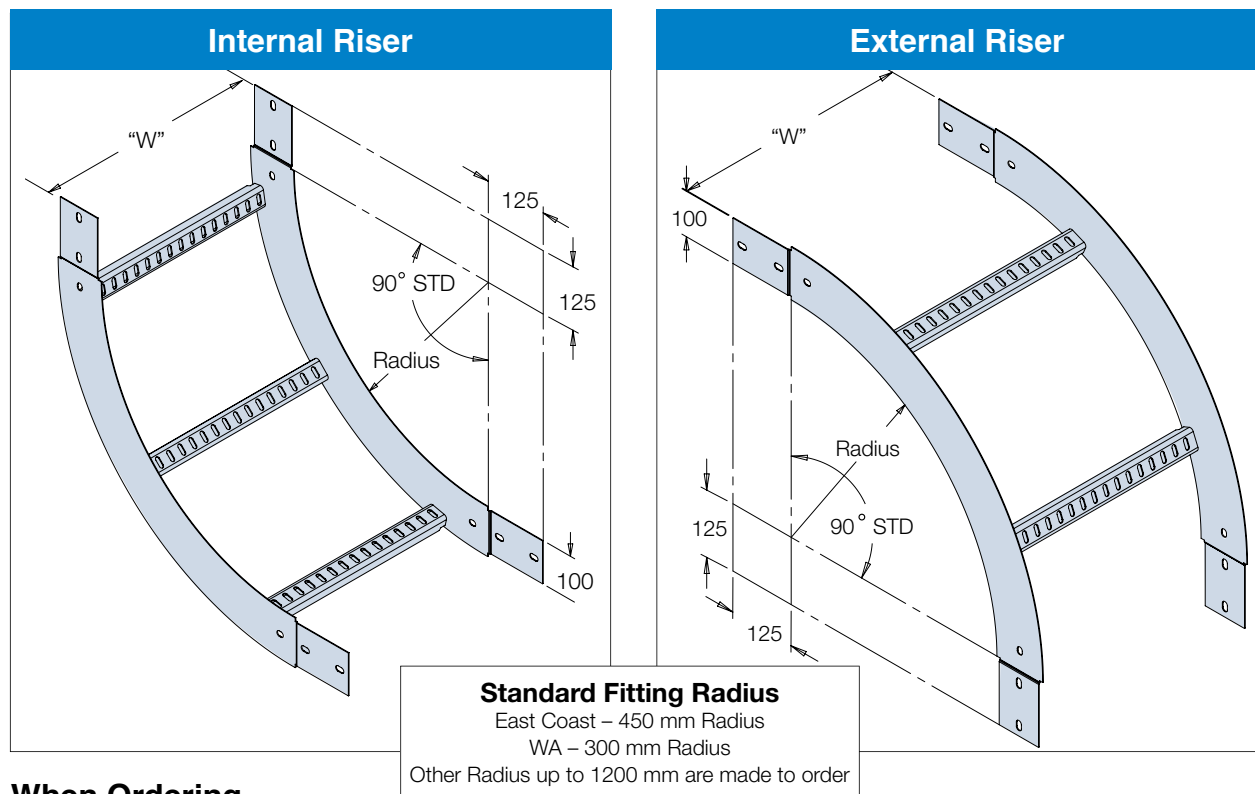
### When Ordering

Range	Type	Size	Finish	Rail Direction	Radius
<b>3C</b>	<b>B</b>	<b>15</b>	<b>H</b>	<b>RI</b>	<b>3</b>
3C = 3/50 100 mm High Side 1.6 mm Gauge	B = Bend C = Cross	15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm 75 = 750 mm 90 = 900 mm	H = Hot Dip Galv S = 316 Stainless Steel A = Aluminium P = Painted	RI = Rail In RO = Rail Out	3 = 300 mm 4 = 450 mm 6 = 600 mm

Ordering example shown 3/50 Cable Ladder Bend 150 mm Wide Hot Dip Galvanised Rail In 300 mm Radius

E.&O.E.

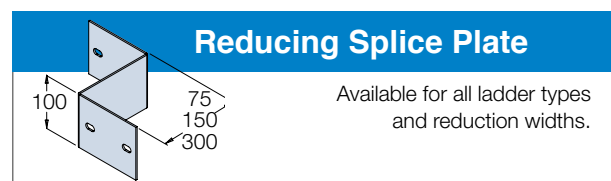
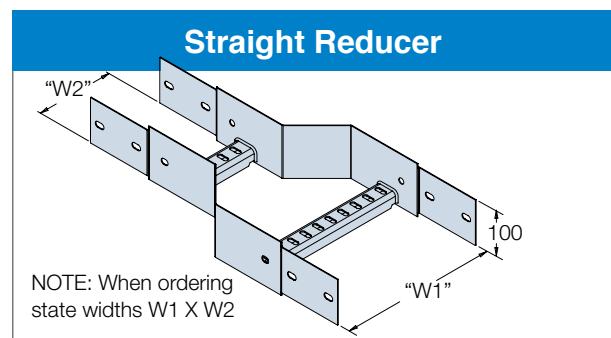
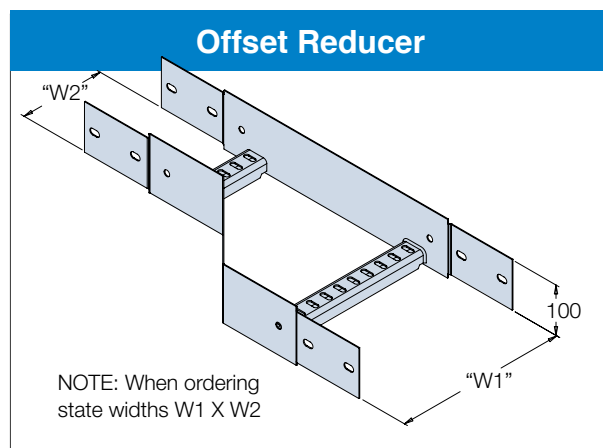
## Cable Ladder 3/50 Fittings



### When Ordering

Range	Type	Size	Finish	Rail Direction	Radius
<b>3C</b> 3C = 3/50 100mm High Side 1.6 mm Gauge	<b>RI</b> RI = Internal Riser RX = External Riser	<b>15</b> 15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm 75 = 750 mm 90 = 900 mm	<b>H</b> H = Hot Dip Galv S = 316 Stainless Steel A = Aluminium P = Painted	<b>RI</b> RI = Rail In RO = Rail Out	<b>3</b> 3 = 300 mm 4 = 450 mm 6 = 600 mm

Ordering example shown 3/50 Cable Ladder Internal Riser 150 mm wide Hot Dip Galvanised Rail In 300 mm Radius



### When Ordering

Range	Type	Size	Finish	Rail Direction
<b>3C</b> 3C = 3/50 100 mm High Side 1.6 mm Gauge	<b>SR</b> SR = Straight Reducer RR = Right Reducer LR = Left Reducer PR = Reducing Splice (i.e. 75 mm, 150 mm & 300 mm)	<b>3015</b> 3015 = 300 to 150 mm 4530 = 450 to 300 mm 6045 = 600 to 450 mm 7560 = 750 to 600 mm 9075 = 900 to 750 mm	<b>H</b> H = Hot Dip Galv S = 316 Stainless Steel A = Aluminium P = Painted	<b>RI</b> RI = Rail In RO = Rail Out

Ordering example shown 3/50 Cable Ladder Straight Reducer 300 to 150 mm Hot Dip Galvanised Rail In

E.&O.E.

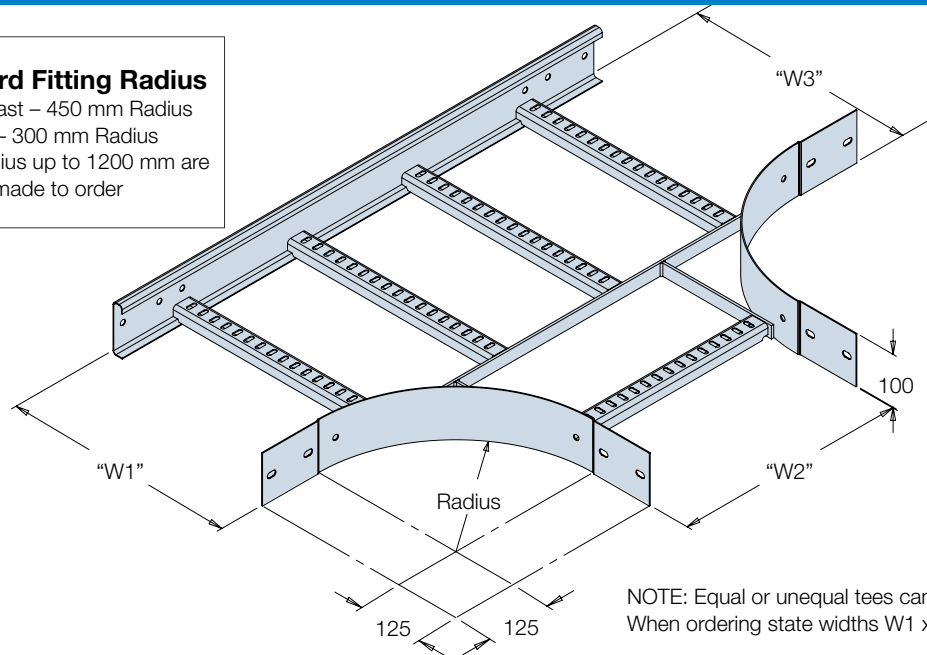


## Cable Ladder 3/50 Fittings

### Rail In Tee 3/50

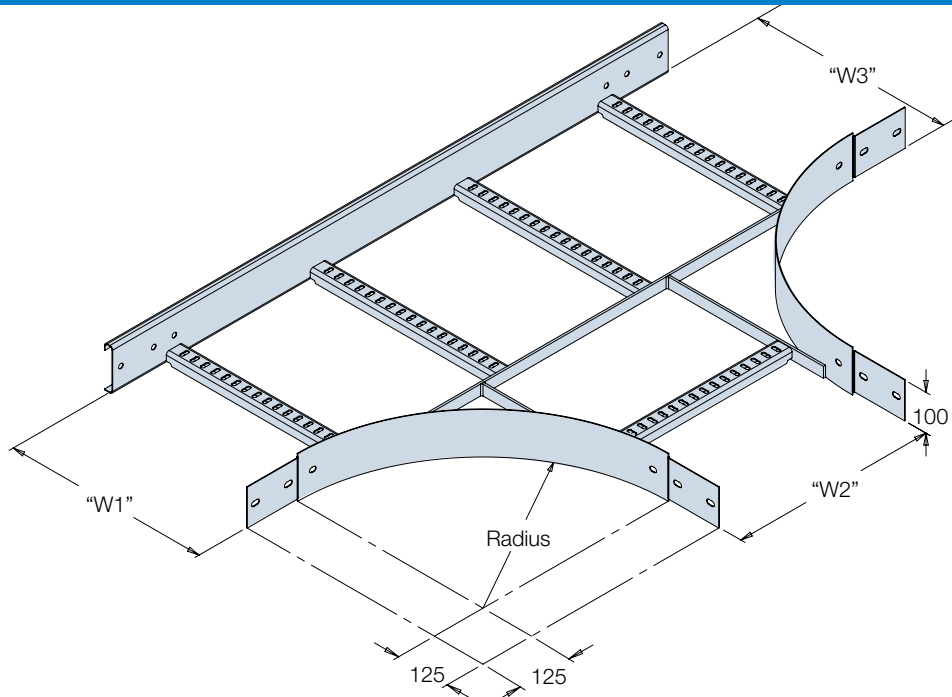
#### Standard Fitting Radius

East Coast – 450 mm Radius  
WA – 300 mm Radius  
Other Radius up to 1200 mm are made to order



NOTE: Equal or unequal tees can be supplied.  
When ordering state widths W1 x W2 x W3

### Rail Out Tee 3/50



### When Ordering

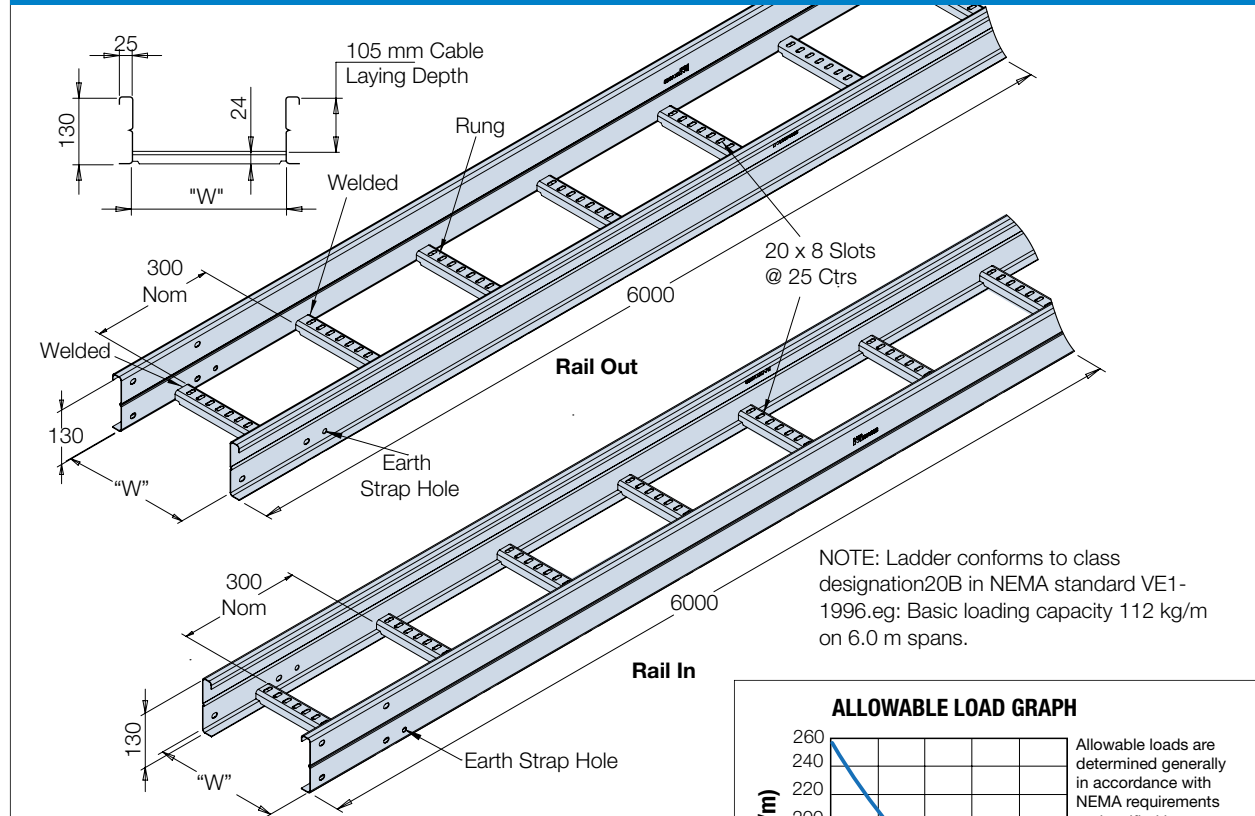
Range	Type	Size	Finish	Rail Direction	Radius
<b>3C</b>	<b>T</b>	<b>15</b>	<b>H</b>	<b>RI</b>	<b>3</b>
3C = 3/50 100 mm High Side 1.6 mm Gauge	T = Tee	15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm 75 = 750 mm 90 = 900 mm	H = Hot Dip Galv S = 316 Stainless Steel A = Aluminium P = Painted	RI = Rail In RO = Rail Out	3 = 300 mm 4 = 450 mm 6 = 600 mm

Ordering example shown 3/50 Cable Ladder Tee 150 mm Wide Hot Dip Galvanised Rail In 300 mm Radius

E.&O.E.

# Cable Ladder Heavy Duty Type 4/70L (NEMA 20B) 1.6 mm Steel

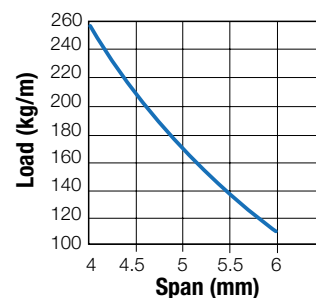
## Cable Ladder Type 4/70L



### Specification

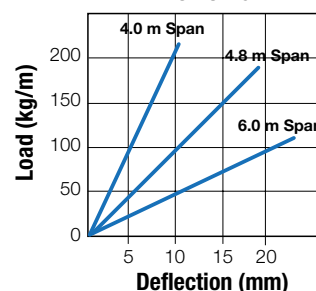
<b>Class Designation:</b>	Cable ladder-heavy duty type 4/70L NEMA classification 20B.
<b>Material:</b>	Steel sheet.
<b>Finish:</b>	Hot dipped galvanised after fabrication. AS/NZS 4680 i.e. 390 gm/m <sup>2</sup> zinc, approx. 55 µm.
<b>Rung Spacing:</b>	300 mm spacings with slotted rungs standard.
<b>Inside Depth:</b>	105 mm cable laying depth.
<b>Stock Length:</b>	6000 mm standard, joining together by full strength splice plates.
<b>Stock Widths:</b>	150 mm, 300 mm, 450 mm & 600 mm standard.
<b>Fittings:</b>	A full range of fittings are available e.g bends, risers, tees, crosses & reducers.
<b>Radius:</b>	300 mm radius standard for rail in. 450 mm radius standard for rail out. Other radii available by request.
<b>Accessories:</b>	Flat or peak covers available for ladders & fittings, barrier strips and hold down clamps.

### ALLOWABLE LOAD GRAPH



Allowable loads are determined generally in accordance with NEMA requirements and verified by testing. Safety factor = 1.5 over collapse load for single span.

### DEFLECTION GRAPH



Deflections shown apply to the end bays (worst case) of a continuous ladder run. To find deflection of a single span, multiply by 2.5.

### When Ordering

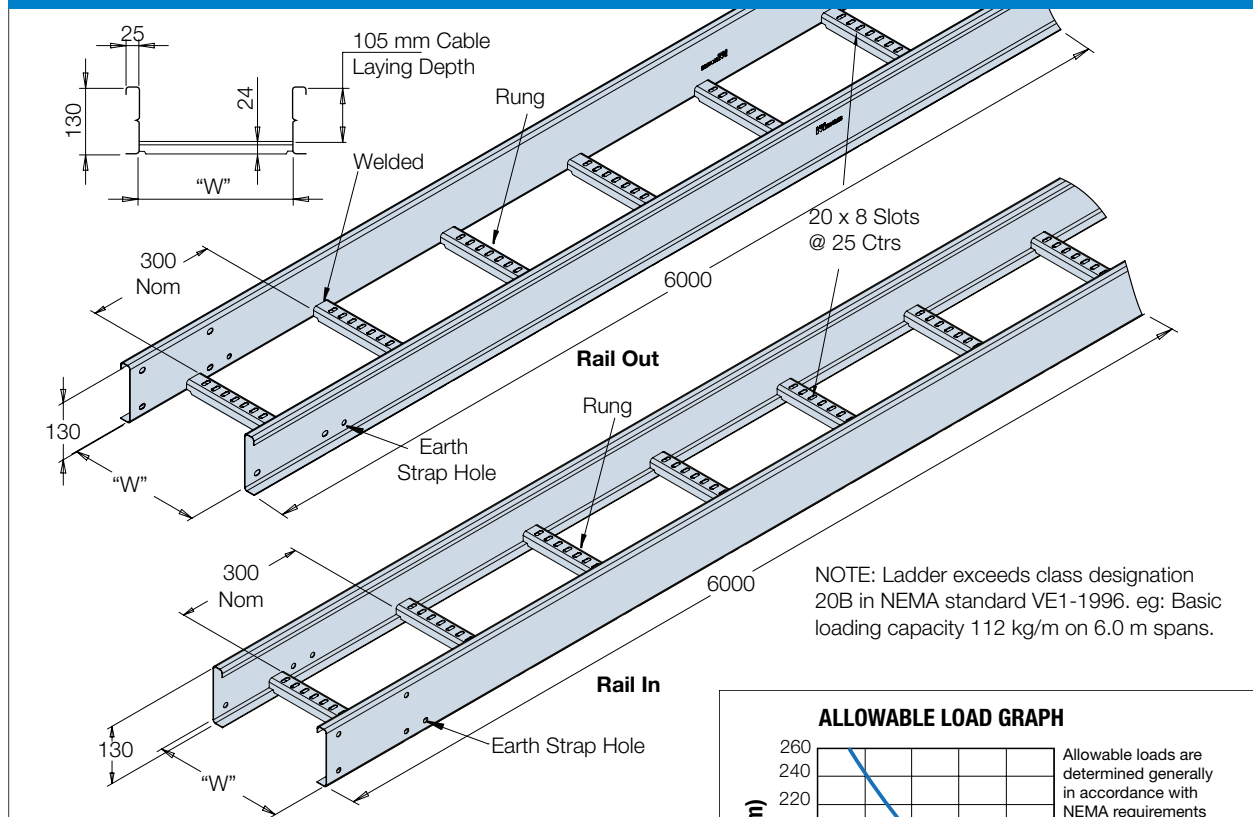
Range	Type	Size	Finish	Rail Direction
<b>4CL</b>	<b>L</b>	<b>15</b>	<b>H</b>	<b>RI</b>
4CL = 4/70L 130 mm High Side 1.6 mm Gauge	L = Straight Length	15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm 75 = 750 mm 90 = 900 mm	H = Hot Dip Galv P = Painted	RI = Rail In RO = Rail Out

Ordering example shown 4/70L Cable Ladder 150 mm Wide Hot Dip Galvanised Rail In

E.&O.E.

# Cable Ladder Heavy Duty Type 4/70 (NEMA 20B) 2 mm Steel

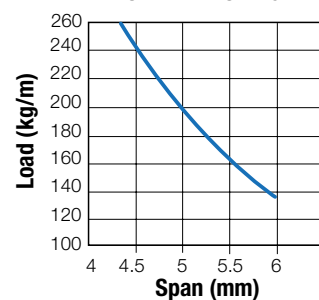
## Cable Ladder Type 4/70



## Specification

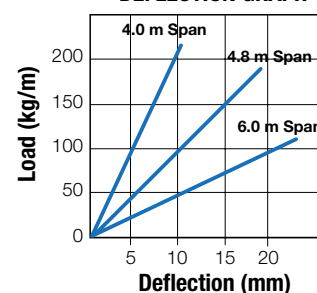
<b>Class Designation:</b>	Cable Ladder-heavy duty type 4/70 exceeds NEMA 20B classification.
<b>Material:</b>	Steel sheet.
<b>Finish:</b>	Hot dipped galvanised after fabrication. AS/NZS 4680 i.e. 390 gm/m <sup>2</sup> zinc, approx. 55 µm.
<b>Rung Spacing:</b>	300 mm spacings with slotted rungs standard.
<b>Inside Depth:</b>	105 mm cable laying depth.
<b>Stock Length:</b>	6000 mm standard, joining together by full strength splice plates.
<b>Stock Widths:</b>	150 mm, 300 mm, 450 mm & 600 mm standard.
<b>Fittings:</b>	A full range of fittings are available e.g bends, risers, tees, crosses & reducers.
<b>Radius:</b>	300 mm radius standard for rail in. 450 mm radius standard for rail out. Other radii available by request.
<b>Accessories:</b>	Flat or peak covers available for ladders & fittings, barrier strips and hold down clamps.

### ALLOWABLE LOAD GRAPH



Allowable loads are determined generally in accordance with NEMA requirements and verified by testing. Safety factor = 1.5 over collapse load for single span.

### DEFLECTION GRAPH



Deflections shown apply to the end bays (worst case) of a continuous ladder run. To find deflection of a single span, multiply by 2.5.

## When Ordering

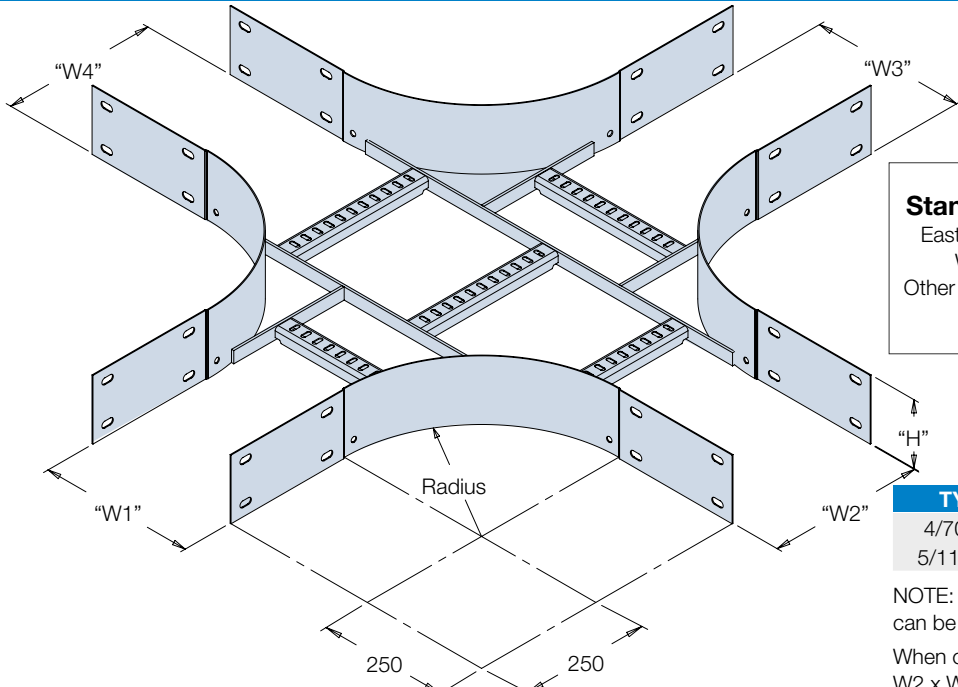
Range	Type	Size	Finish	Rail Direction
<b>4C</b> 4C = 4/70 130 mm High Side 2.0 mm Gauge	<b>L</b> L = Straight Length	<b>15</b> 15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm 75 = 750 mm 90 = 900 mm	<b>H</b> H = Hot Dip Galv P = Painted	<b>RI</b> RI = Rail In RO = Rail Out

Ordering example shown 4/70 Cable Ladder 150 mm Wide Hot Dip Galvanised Rail In

E.&O.E.

## Cable Ladder 4/70 and 5/112 Fittings

### Cross 4/70 & 5/112

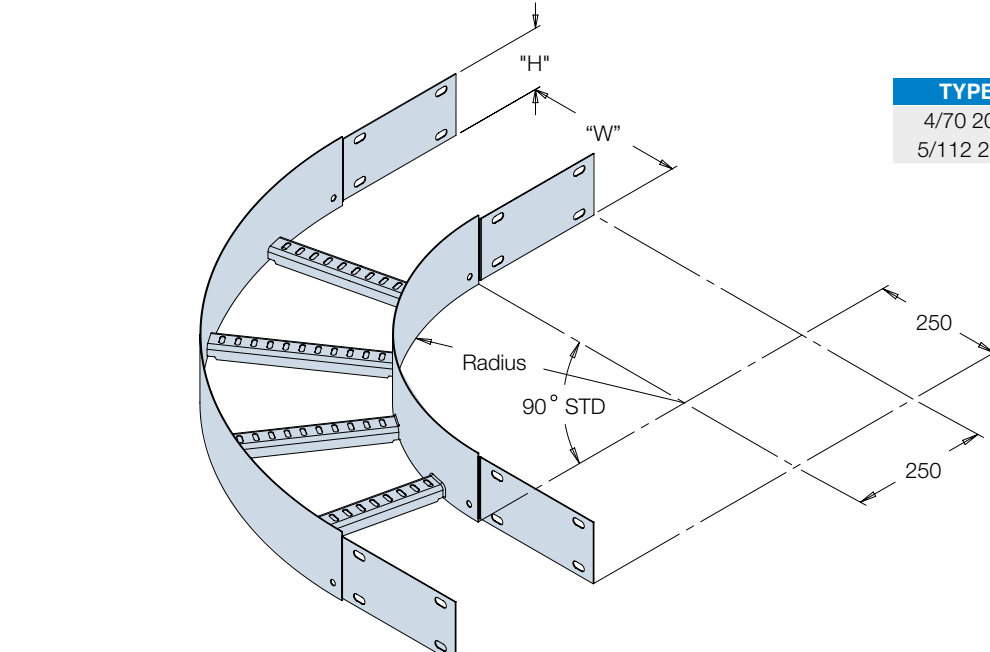


**Standard Fitting Radius**  
 East Coast – 450 mm Radius  
 WA – 300 mm Radius  
 Other Radius up to 1200 mm are made to order

TYPE	HEIGHT
4/70 20B	130 mm
5/112 20C	146 mm

NOTE: Equal or unequal crosses can be supplied.  
 When ordering state widths W1 x W2 x W3 x W4

### Bend 4/70 & 5/112



TYPE	HEIGHT
4/70 20B	130 mm
5/112 20C	146 mm

### When Ordering

Range	Type	Size	Finish	Rail Direction	Radius
<b>4C</b> 4C = 4/70 130 mm High Side 5C = 5/112 146 mm High Side	<b>B</b> = Bend <b>C</b> = Cross	<b>15</b> 15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm 75 = 750 mm 90 = 900 mm	<b>H</b> H = Hot Dip Galv S = 316 Stainless Steel A = Aluminium P = Painted	<b>RI</b> RI = Rail In RO = Rail Out	<b>3</b> 3 = 300 mm 4 = 450 mm 6 = 600 mm

Ordering example shown 4/70 Cable Ladder Bend 150 mm Wide Hot Dip Galvanised Rail In 300 mm Radius

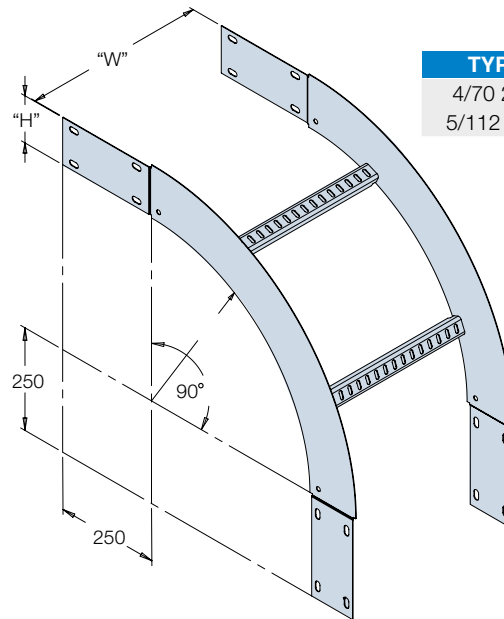
E.&O.E.

# Cable Ladder 4/70 and 5/112 Fittings

## External Riser 4/70 & 5/112

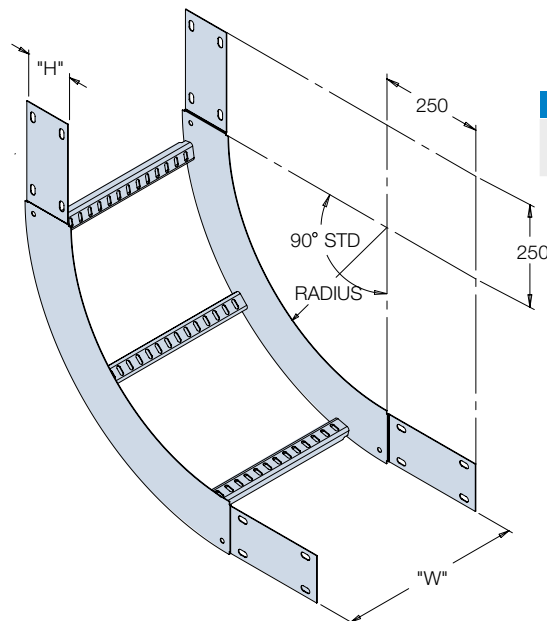
### Standard Fitting Radius

East Coast – 450 mm Radius  
WA – 300 mm Radius  
Other Radius up to 1200 mm are made to order



TYPE	HEIGHT
4/70 20B	130 mm
5/112 20C	146 mm

## Internal Riser 4/70 & 5/112



TYPE	HEIGHT
4/70 20B	130 mm
5/112 20C	146 mm

## When Ordering

Range	Type	Size	Finish	Rail Direction	Radius
<b>4C</b>	<b>RI</b>	<b>15</b>	<b>H</b>	<b>RI</b>	<b>3</b>
4C = 4/70 130 mm High Side	RI = Internal Riser	15 = 150 mm	H = Hot Dip Galv	RI = Rail In	3 = 300 mm
5C = 5/112 146 mm High Side	RX = External Riser	30 = 300 mm	S = 316 Stainless Steel	RO = Rail Out	4 = 450 mm
		45 = 450 mm	A = Aluminium		6 = 600 mm
		60 = 600 mm	P = Painted		
		75 = 750 mm			
		90 = 900 mm			

Ordering example shown 4/70 Cable Ladder Internal Riser 150 mm Wide Hot Dip Galvanised Rail In 300 mm Radius

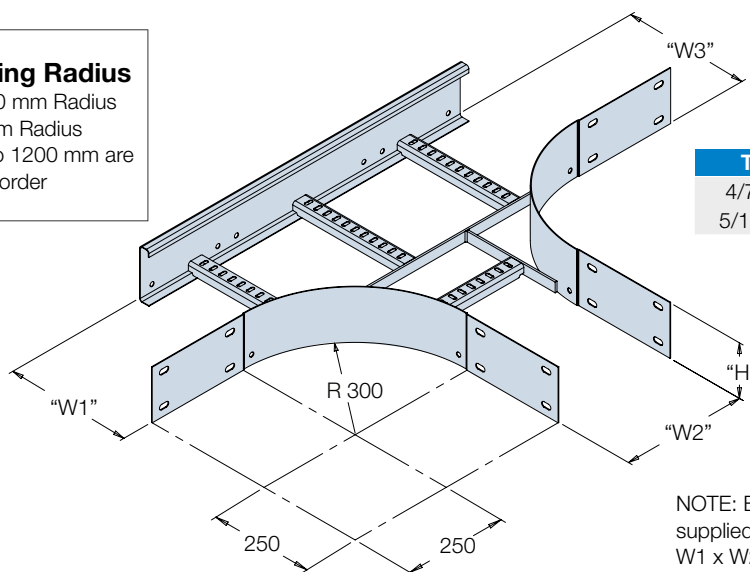
E.&O.E.

## Cable Ladder 4/70 and 5/112 Fittings

### Rail In 4/70 & 5/112 Tee

#### Standard Fitting Radius

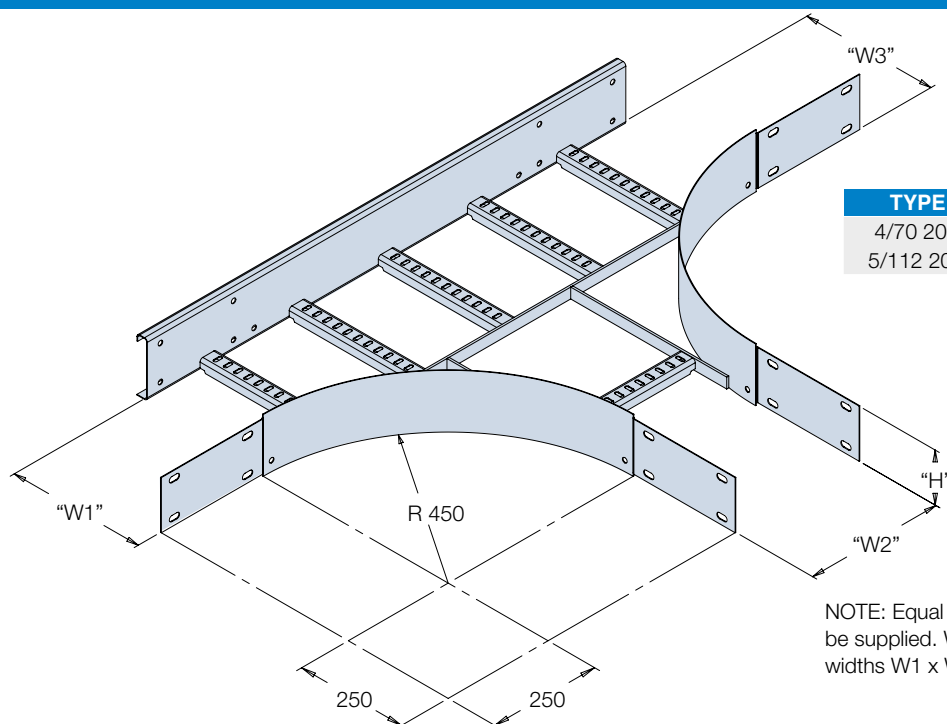
East Coast – 450 mm Radius  
WA – 300 mm Radius  
Other Radius up to 1200 mm are made to order



TYPE	HEIGHT
4/70 20B	130 mm
5/112 20C	146 mm

NOTE: Equal or unequal tees can be supplied. When ordering state widths W1 x W2 x W3

### Rail Out 4/70 & 5/112 Tee



TYPE	HEIGHT
4/70 20B	130 mm
5/112 20C	146 mm

NOTE: Equal or unequal tees can be supplied. When ordering state widths W1 x W2 x W3

### When Ordering

Range	Type	Size	Finish	Rail Direction	Radius
<b>4C</b>	<b>T</b>	<b>15</b>	<b>H</b>	<b>RI</b>	<b>3</b>
4C = 4/70 130 mm High Side	T = Tee	15 = 150 mm	H = Hot Dip Galv	RI = Rail In	3 = 300 mm
5C = 5/112 146 mm High Side		30 = 300 mm	S = 316 Stainless Steel	RO = Rail Out	4 = 450 mm
		45 = 450 mm	A = Aluminium		6 = 600 mm
		60 = 600 mm	P = Painted		
		75 = 750 mm			
		90 = 900 mm			

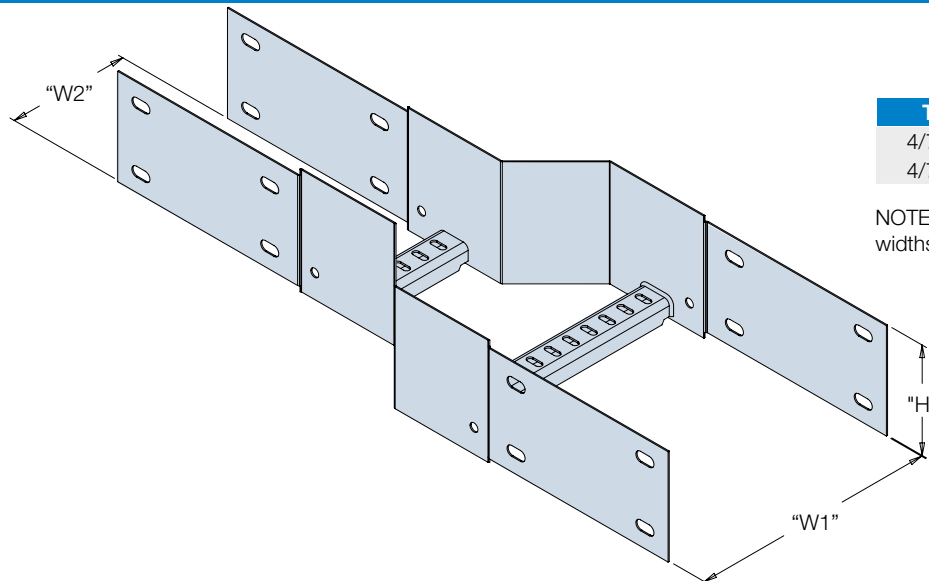
Ordering example shown 4/70 Cable Ladder Equal Tee 150 mm Wide Hot Dip Galvanised Rail In 300 mm Radius

E.&O.E.



## Cable Ladder 4/70 and 5/112 Fittings

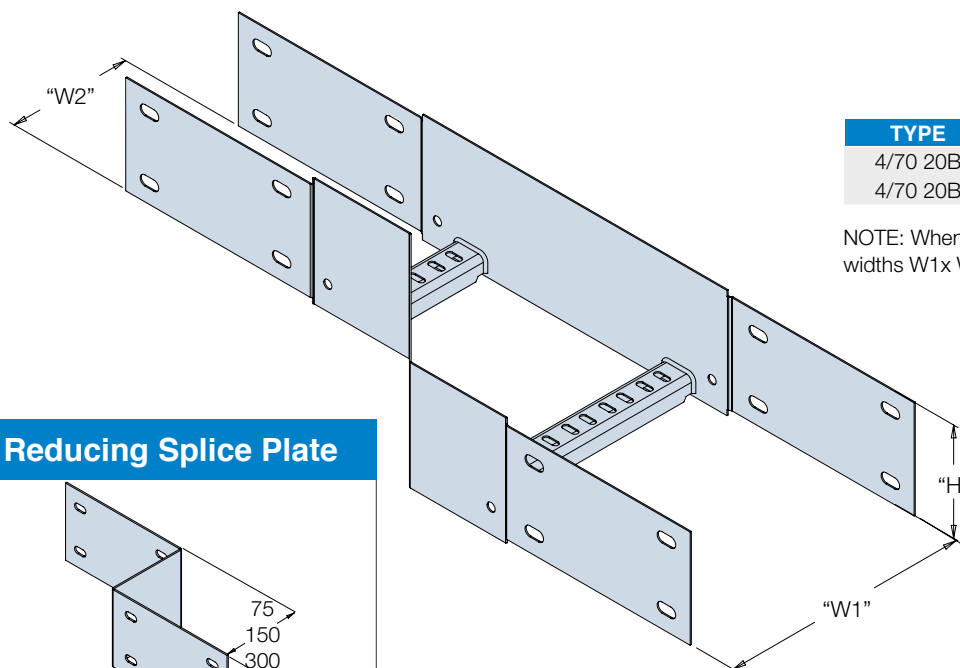
### Straight Reducer 4/70 & 5/112



TYPE	HEIGHT
4/70 20B	130 mm
4/70 20B	146 mm

NOTE: When ordering state widths W1 x W2

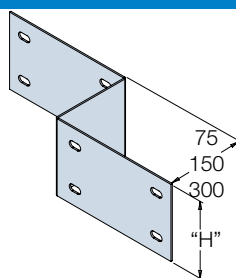
### Offset Reducer 4/70 & 5/112



TYPE	HEIGHT
4/70 20B	130 mm
4/70 20B	146 mm

NOTE: When ordering state widths W1x W2

### Reducing Splice Plate



### When Ordering

Range	Type	Size	Finish	Rail Direction
<b>4C</b>	<b>SR</b>	<b>3015</b>	<b>H</b>	<b>RI</b>
4C = 4/70 130 mm High Side	SR = Straight Reducer	3015 = 300 to 150 mm	H = Hot Dip Galv	RI = Rail In
5C = 5/112 146 mm High Side	RR = Right Reducer	4530 = 450 to 300 mm	S = 316 Stainless Steel	RO = Rail Out
	LR = Left Reducer	6045 = 600 to 450 mm	A = Aluminium	
	PR = Reducing Splice (i.e. 75mm, 150mm & 300mm)	7560 = 750 to 600 mm	P = Painted	
		9075 = 900 to 750 mm		

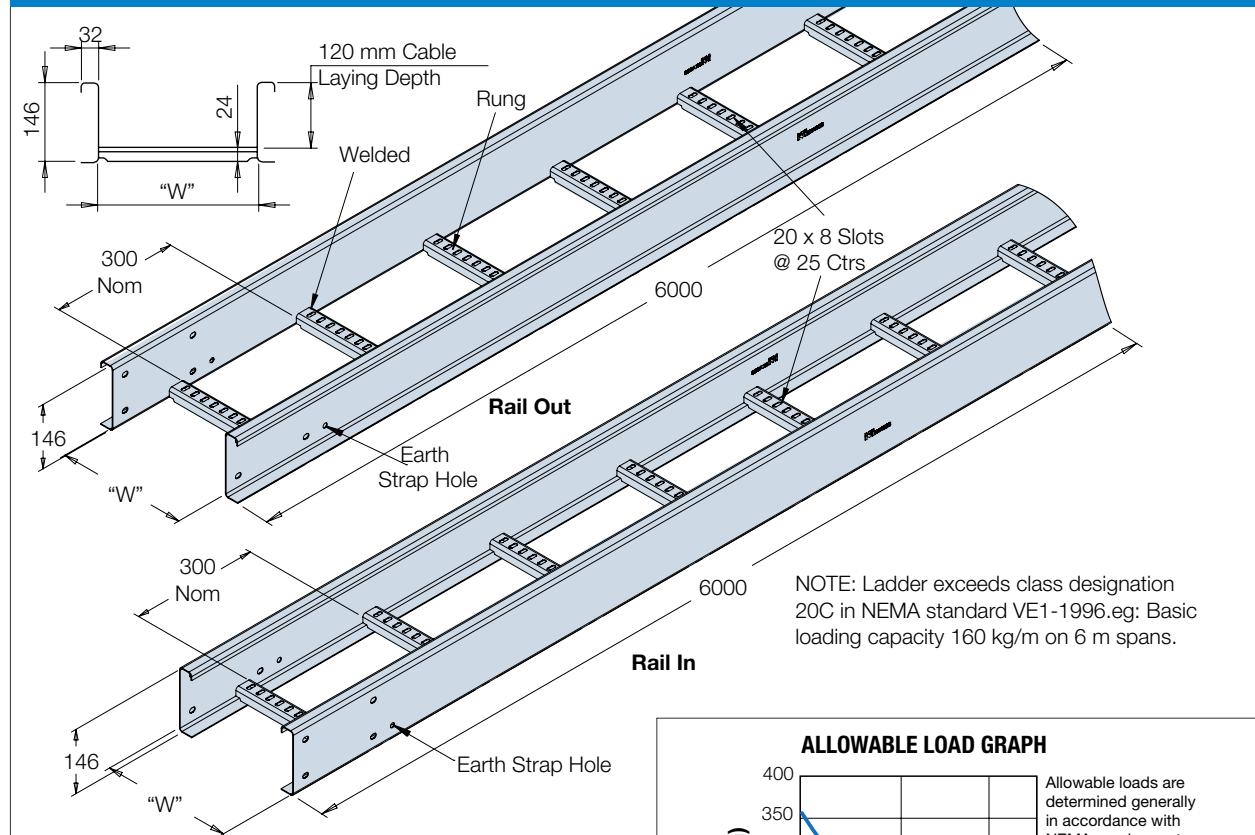
Ordering example shown 4/70 Cable Ladder Straight Reducer 300 to 150 mm Wide Hot Dip Galvanised Rail In

E.&O.E.



# Cable Ladder Heavy Duty Type 5/112 (NEMA 20C) 2 mm Steel

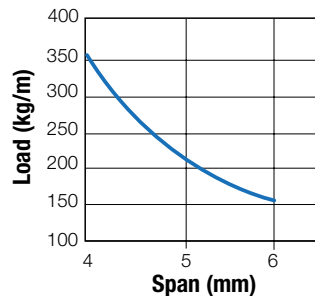
## Cable ladder Type 5/112



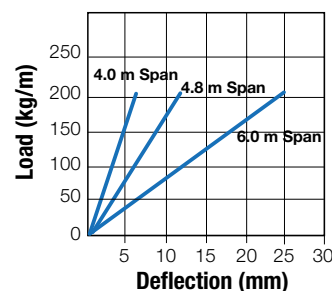
## Specification

<b>Class Designation:</b>	Cable ladder-heavy duty type 5/112.
<b>Material:</b>	Steel sheet.
<b>Finish:</b>	Hot dipped galvanised after fabrication to AS/NZS 4680 ie 390 gm/m <sup>2</sup> zinc, approx, 55 µm.
<b>Rung Spacing:</b>	300 mm spacings with slotted rungs standard.
<b>Inside Depth:</b>	120 mm cable laying depth.
<b>Stock Length:</b>	6000 mm standard, joining together by full strength splice plates.
<b>Stock Widths:</b>	150 mm, 300 mm, 450 mm & 600 mm standard.
<b>Fittings:</b>	A full range of fittings are available e.g bends, risers, tees, crosses & reducers.
<b>Radius:</b>	300 mm radius standard for rail in. 450 mm radius standard for rail out. Other radii available by request.
<b>Accessories:</b>	Flat or peak covers available for ladders & fittings, barrier strips and hold down clamps.

### ALLOWABLE LOAD GRAPH



### DEFLECTION GRAPH



## When Ordering

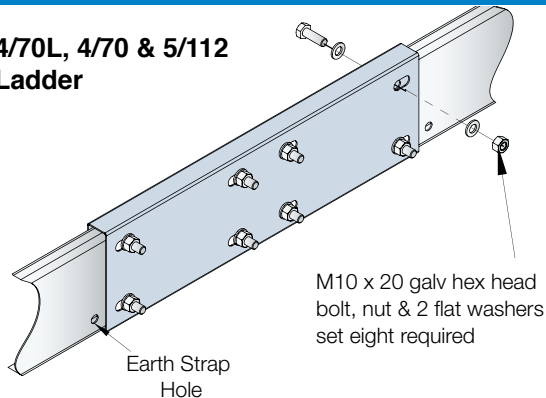
Range	Type	Size	Finish	Rail Direction
<b>5C</b>	<b>L</b>	<b>15</b>	<b>H</b>	<b>RI</b>
5C = 5/112 146 mm High Side 2.0 mm Gauge	L = Straight Length	15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm 75 = 750 mm 90 = 900 mm	H = Hot Dip Galv P = Painted	RI = Rail In RO = Rail Out

Ordering example shown 5/112 Cable Ladder 150 mm Wide Hot Dip Galvanised Rail In  
E.&O.E.

## Cable Ladder Splice Plates

### Rail In Splice Plates

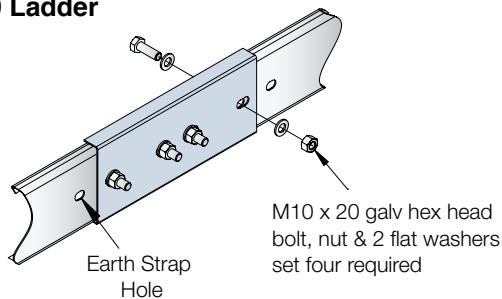
**4/70L, 4/70 & 5/112 Ladder**



M10 x 20 galv hex head bolt, nut & 2 flat washers set eight required

Earth Strap Hole

**3/50 Ladder**

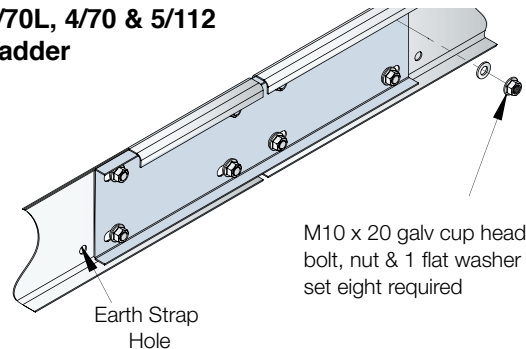


M10 x 20 galv hex head bolt, nut & 2 flat washers set four required

Earth Strap Hole

### Rail Out Splice Plates

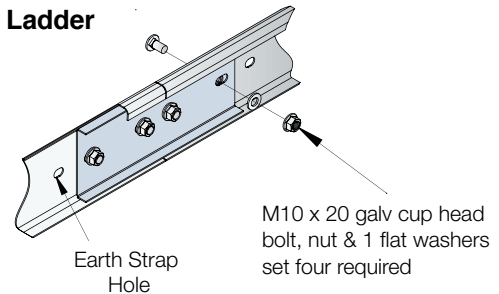
**4/70L, 4/70 & 5/112 Ladder**



M10 x 20 galv cup head bolt, nut & 1 flat washer set eight required

Earth Strap Hole

**3/50 Ladder**



M10 x 20 galv cup head bolt, nut & 1 flat washers set four required

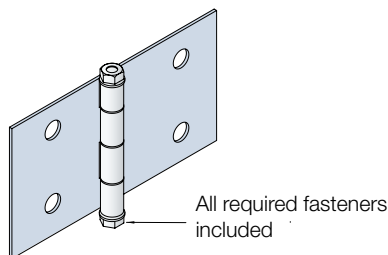
Earth Strap Hole

### When Ordering

Range	Type	Finish	Rail Direction
<b>3C</b>	<b>LP</b>	<b>H</b>	<b>RI</b>
3C = 3/50 100 mm High Side	LP = Straight Splice Plate	H = Hot Dip Galv	RI = Rail In
4C = 4/70 130 mm High Side		S = 316 Stainless Steel	RO = Rail Out
5C = 5/112 146 mm High Side		A = Aluminium	
		P = Painted	

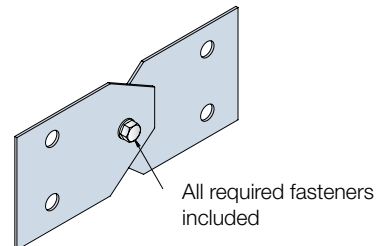
Ordering example shown 3/50 Splice Plate Hot Dip Galvanised Rail In

### Horizontal Hinge Splice Plate



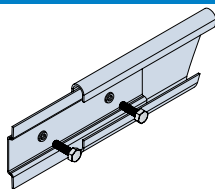
All required fasteners included

### Verticle Hinge Splice Plate



All required fasteners included

### 2/30 Splice Plate



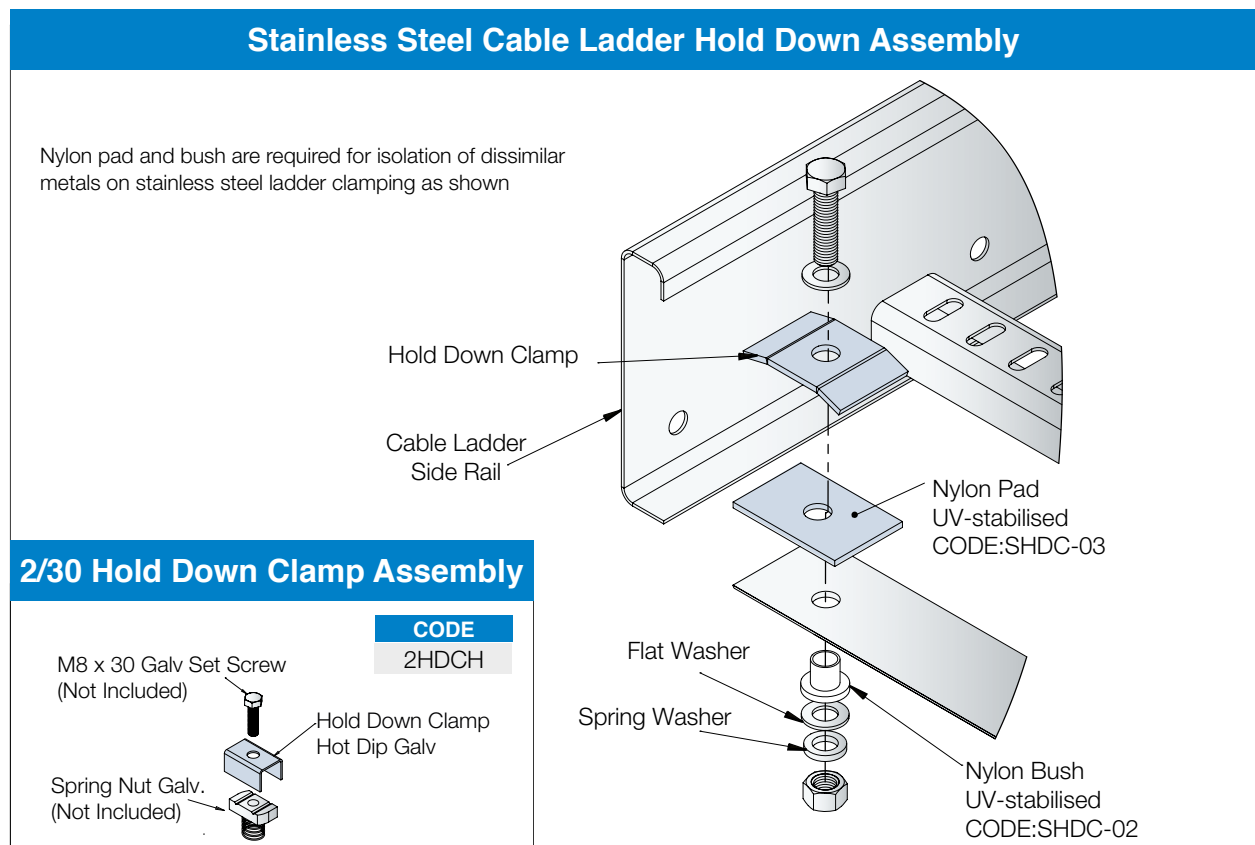
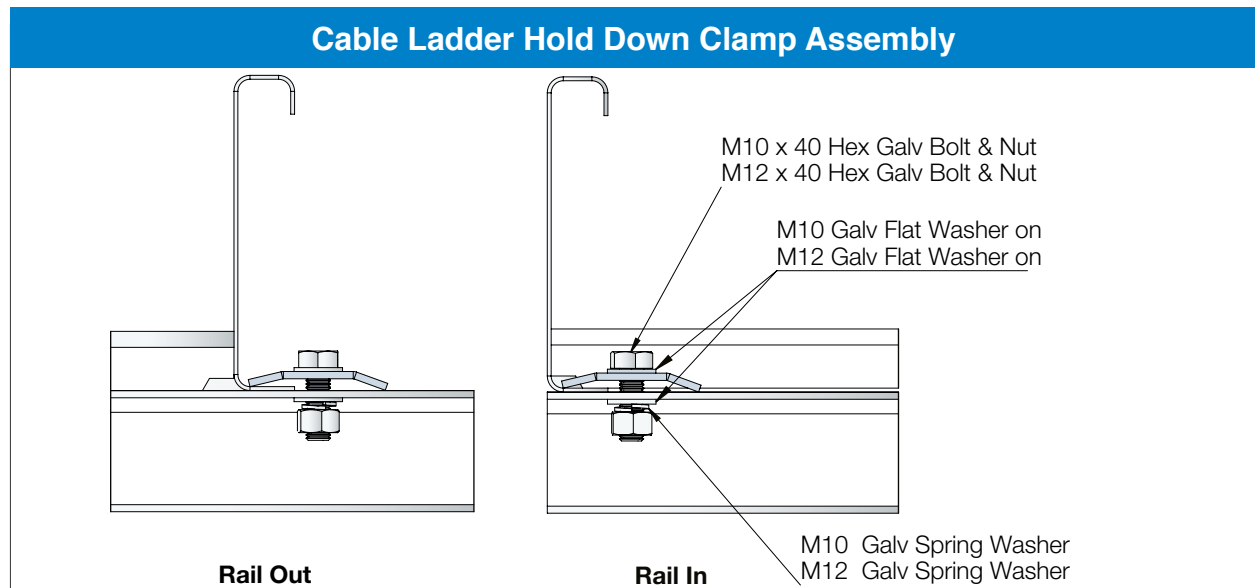
### When Ordering

Range	Type	Finish
<b>2C</b>	<b>LP</b>	<b>H</b>
2C = 2/30 65 mm High Side	LP = Straight Splice Plate	H = Hot Dip Galv
3C = 3/50 100 mm High Side	HP = Horizontal Hinge	S = 316 Stainless Steel
4C = 4/70 130 mm High Side	VP = Vertical Hinge	A = Aluminium
5C = 5/112 146 mm High Side		P = Painted

Ordering example shown 2/30 Splice Plate Hot Dip Galvanised

E.&O.E.

## Cable Ladder Hold Down Clamps



### When Ordering

Range	Type	Finish
<b>HDC</b> HDC = Square Hold Down Clamp	<b>S</b> S = Standard 3 mm Thick 11 mm Ø C10 = Cyclonic 5 mm Thick 11 mm Ø C12 = Cyclonic 5 mm Thick 14 mm Ø BN10 = 40 mm Bolt, Nut & Washer M10 BN12 = 40 mm Bolt, Nut & Washer M12	<b>H</b> H = Hot Dip Galv S = 316 Stainless Steel Z = Zinc Plated

Ordering example shown Hold Down Clamp Standard 3 mm 11 mm Thick Ø Hot Dip Galvanised

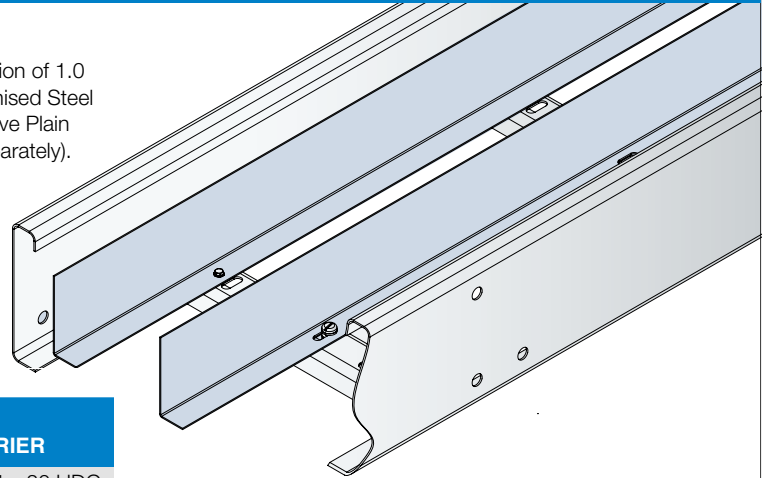
NOTE: Fastening lengths are based on fixing to a 8mm maximum thickness. For other supports we would require details when ordering to ensure correct fastener length.

# Cable Ladder Barrier Strip & Earth Strap

## Barrier Strip – Length 3 m

### Barrier Strip

Barrier Strip is supplied in 3 m lengths with the option of 1.0 mm thick Galvabond, 1.6 mm thick Hot Dip Galvanised Steel and 0.6 mm Stainless Steel (with safe edge). All have Plain Type flange for Tek screw fixing (hardware sold separately).



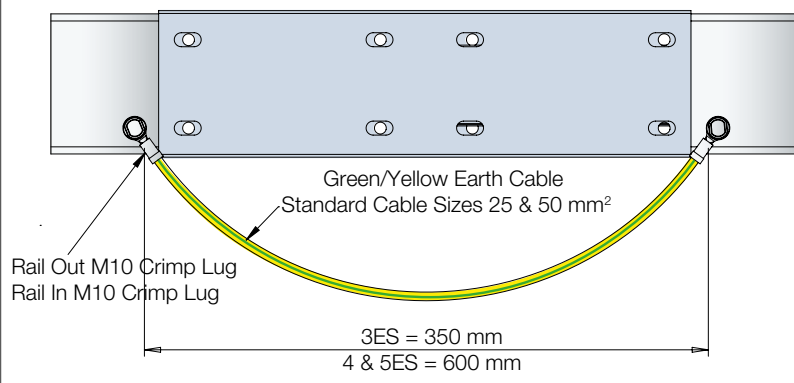
#### Barrier Fixings Sold Separately

CODE	BARRIER FIXINGS 3 REQUIRED PER BARRIER
CSKH	Tek Galv – Tek Screw Hex 12-14 x 20 HDG
CSKS	Tek SS – Tek Screw Hex 12-14 x 20 SS
PHS0620H	Bolt Galv – Pan Head Screw M6 x 20 HDG
PHS0620S	Bolt SS – Pan Head Screw M6 x 20 SS
K3016H	Nut Galv – Channel Butterfly Nut M6 HDG
K3016S	Nut SS – Channel Butterfly Nut M6 SS

### When Ordering

Range	Type	Material	Finish
<b>2C</b> 2C = 65 mm High Side 3C = 3/50 100 mm High Side 4/5C = 4/70 130 mm High Side & 5/112 146 mm High Side	<b>ST</b> ST = Segregation Slotted Flange S = Solid Flange	<b>L</b> L = 0.6 mm Thick (N/A in Hot Dip Galv) M = 1.0 mm Thick H = 1.6 mm Thick	<b>G</b> G = Galvabond H = Hot Dip Galv S = 316 Stainless Steel A = Aluminium

Ordering example shown 2/30 Barrier Strip Slotted Flange Light Duty Galvabond

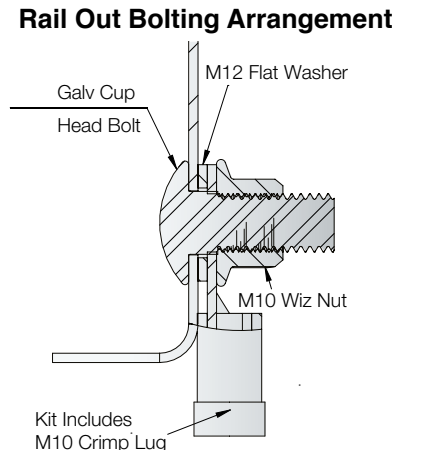


Green/Yellow Earth Cable  
Standard Cable Sizes 25 & 50 mm<sup>2</sup>

Rail Out M10 Crimp Lug  
Rail In M10 Crimp Lug

3ES = 350 mm  
4 & 5ES = 600 mm

#### Rail Out Bolting Arrangement



Galv Cup Head Bolt

M12 Flat Washer

M10 Wiz Nut

Kit Includes M10 Crimp Lug

#### Earth Strap Kit Code

CODE RAIL IN	CODE RAIL OUT	LADDER TYPE
3ES	3ESRO	3/50
4ES	4ESRO	4/70
5ES	5ESRO	5/112

Kit comprises earth strap and fastenings as shown. Specify cable size in Code i.e. 4ES 50 (50 mm<sup>2</sup> size)

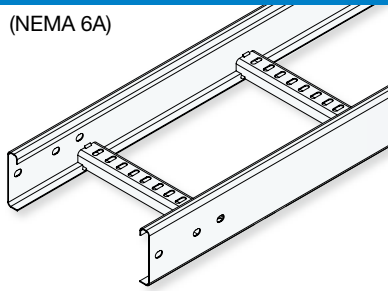
RAIL DIRECTION	CODE	DESCRIPTION	QTY
Rail In	HHB1025	M10 x 25 Hex Galv Screw	2EA
	HN10	M10 Hex Galv Nut	2EA
	FW10	M10 Galv Flat Washer	2EA
	SW10	M10 Galv Spring Washer	2EA
Rail Out	CLB1020	M10 x 20 Cuphead Galv Screw	2EA
	WN10	M10 Hex Galv Wiz Nut	2EA
	FW10	M10 Galv Flat Washer	2EA

E.&O.E.

## SECTION 4: Cable Ladder Stainless Steel & Aluminium

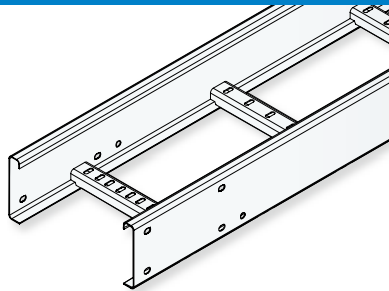
**Stainless Steel Type 3/50**

(NEMA 6A)



> 4:3

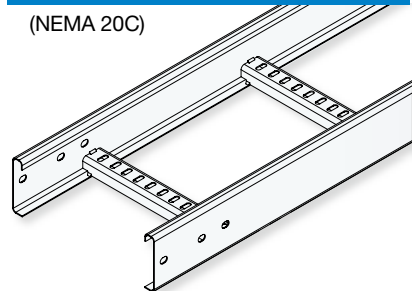
**Stainless Steel Type 4/70L**



> 4:4

**Stainless Steel Type 5/112**

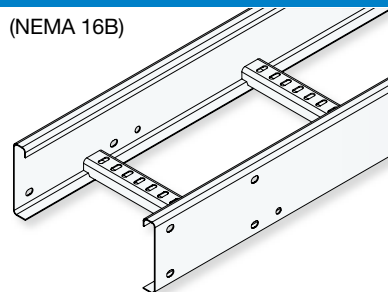
(NEMA 20C)



> 4:5

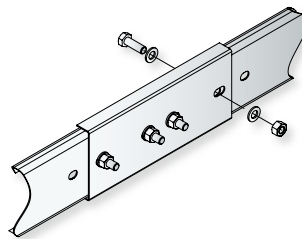
**Aluminium Type 4/70A**

(NEMA 16B)



> 4:7

**Ladder Splice Plates**



> 3:18

# Cable Ladder Stainless Steel

## General Description

The Kounis Metal Industries Stainless Steel Cable Ladder Systems were developed for use in commercial, industrial & mining applications where the surrounding environment calls for a higher level of protection against corrosion.

Its superior support strength and open ventilation allows for effortless installation of electrical cables and or pipe work.

The finished product is constructed from 316 Grade Stainless Steel side rail sections and rungs welded at 300 mm continuous spacings. Surface treatment is post production pickling and passivation with the focus of ensuring all weld joints are clean to achieve a maximum life span from the installation.

This product range comprises of three system types to cover a wide range of requirements; **Type 3/50** 100mm Side (NEMA 16A), **Type 4/70L** 130 mm Side and **Type 5/112** 146 mm Side (NEMA 20C). All of which offer the following standard features:

- 6 m lengths
- Self-splicing Bend, Riser, Tee & Cross Fittings.
- Rail in or rail out option
- Earthing holes at point of connection on straight lengths as well as fittings
- Channel type rung offering superior strength
- 25 mm rung tie off centres to allow maximum tie off options
- Hold Down Clamps assemblies with nylon isolation pads and bushes are available for dissimilar materials.
- A full range of flat and peak covers are available for straight lengths and fittings

Engineer certification to withstand certain cyclonic conditions (only available for Type 4/70 & 5/112, minimum installation requirements apply).

All fitting radius measurements are to the internal side rail, stock standard radius varies depending on cable ladder system type and branch standard. All other listed radius options are made to firm order.

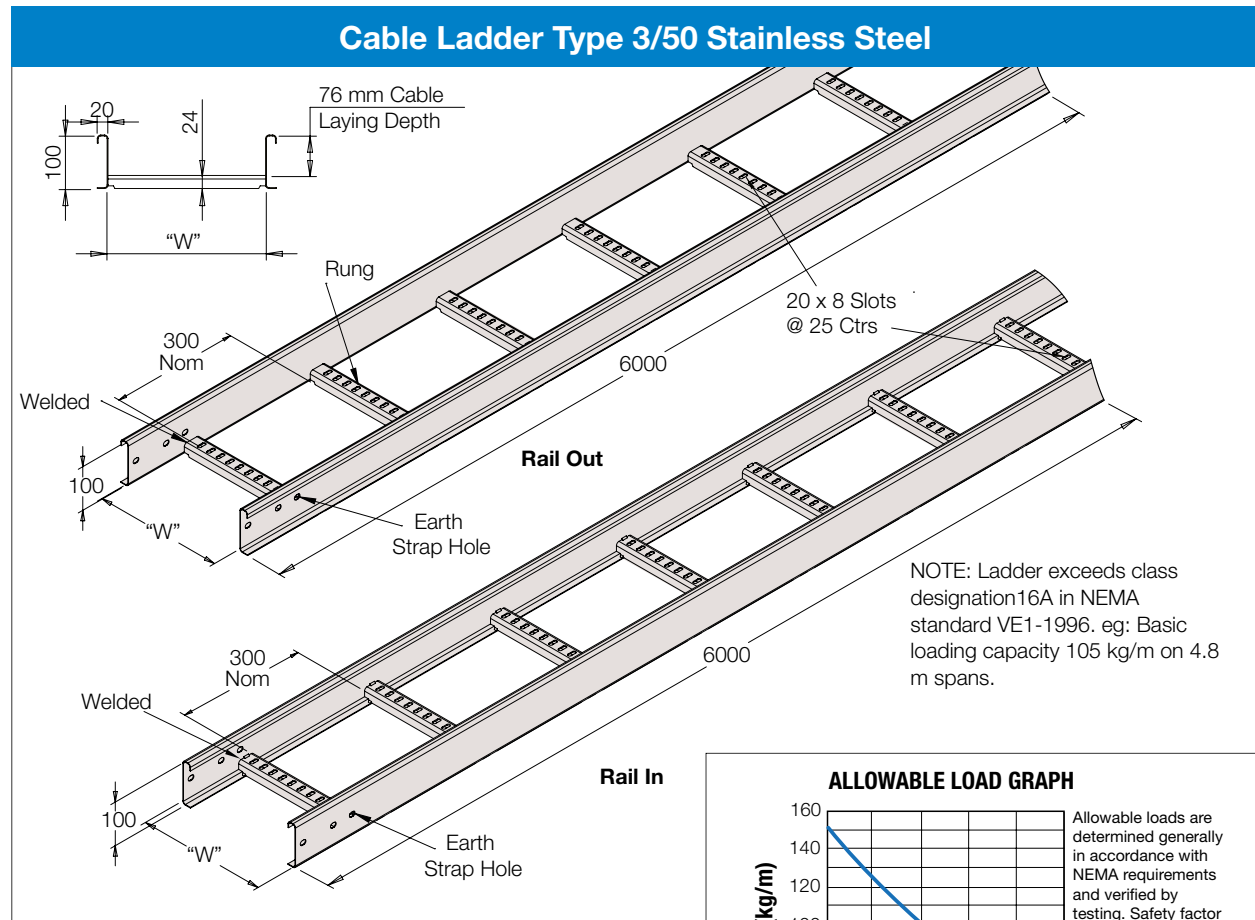
Load capacities and deflection graphs are published by type and can be found on the straight length page for the associated cable ladder system.

Tested to NEMA VE1 Standards. Full engineering details are available on request.

E.&O.E.



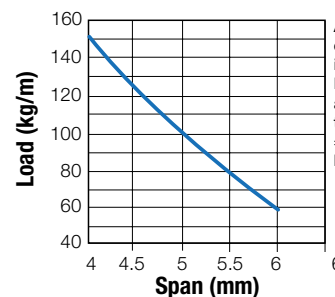
# Cable Ladder Medium To Heavy Duty Type 3/50 (NEMA 16A) 1.6 mm Stainless Steel 316 Grade



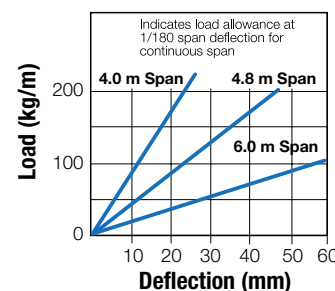
## Specification

<b>Class Designation:</b>	Cable ladder-medium to heavy duty type 3/50.
<b>Material:</b>	316 stainless steel sheet.
<b>Finish:</b>	Natural.
<b>Rung Spacing:</b>	300 mm spacings with slotted rung standard.
<b>Inside Depth:</b>	76 mm cable laying depth.
<b>Stock Length:</b>	6000 mm standard, joining together by full strength splice plates
<b>Stock Widths:</b>	150 mm, 300 mm, 450 mm & 600 mm standard. Other widths available by request.
<b>Fittings:</b>	A full range of fittings are available e.g bends, risers, tees, crosses and reducers.
<b>Radius:</b>	300 mm radius standard for rail in. 450 mm radius standard for rail out. Other radii available by request.
<b>Accessories:</b>	Flat or peak covers available for ladders and fittings. Barrier strips. Hold down clamps.

**ALLOWABLE LOAD GRAPH**



**DEFLECTION GRAPH**



## When Ordering

Range	Type	Size	Finish	Rail Direction
<b>3C</b> 3C = 3/50 100 mm High Side 1.6 mm Gauge	<b>L</b> L = Straight Length	<b>15</b> 15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm 75 = 750 mm 90 = 900 mm	<b>S</b> S = 316 Stainless Steel	<b>RI</b> RI = Rail In RO = Rail Out

Ordering example shown 3/50 Cable Ladder 150 mm Wide 316 Stainless Steel Rail In

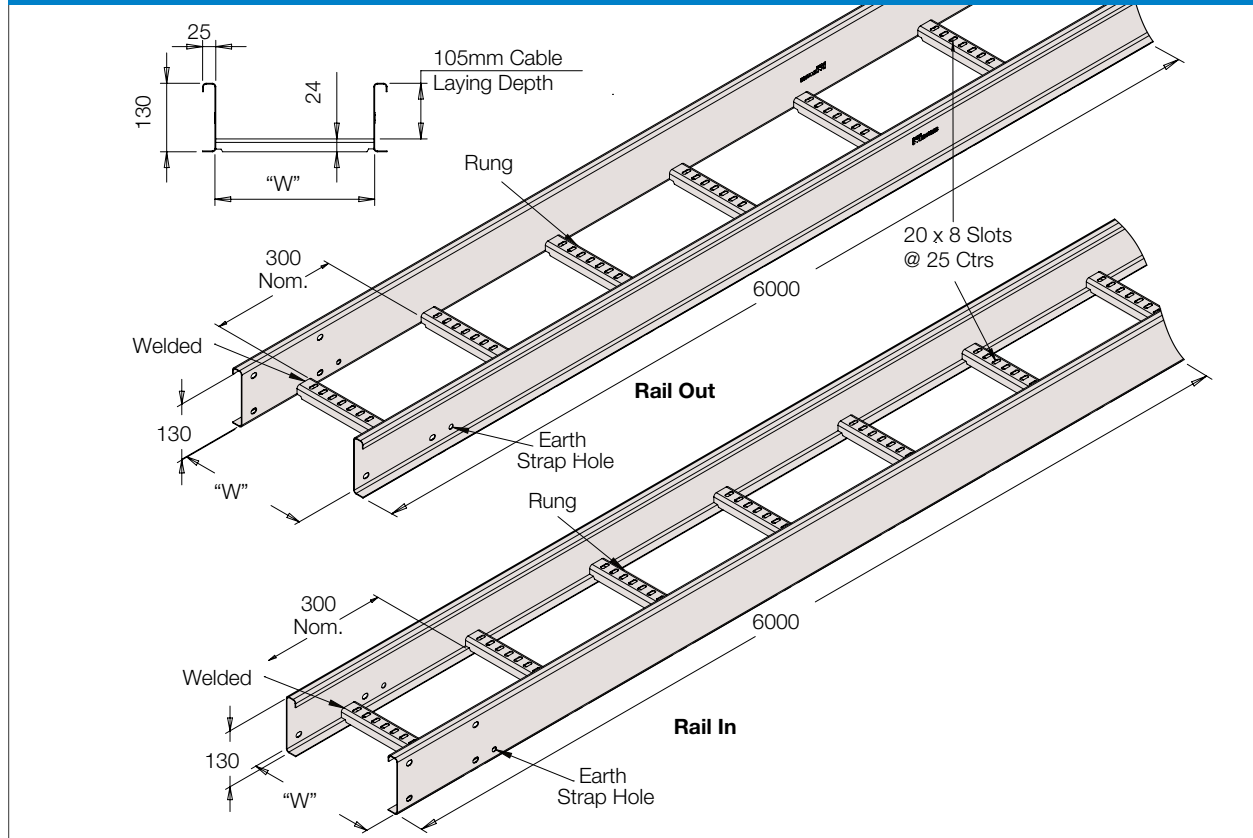
E.&O.E.



# Cable Ladder Heavy Duty Type 4/70L

## 1.6 mm Stainless Steel 316 Grade

### Cable Ladder Type 4/70L



### Specification

<b>Class Designation:</b>	Cable ladder-medium to heavy duty type 4/70L.
<b>Material:</b>	316 stainless steel sheet.
<b>Finish:</b>	Natural.
<b>Rung Spacing:</b>	300 mm spacings with slotted rung standard.
<b>Inside Depth:</b>	105 mm cable laying depth.
<b>Stock Length:</b>	6000 mm standard, joining together by full strength splice plates.
<b>Stock Widths:</b>	150 mm, 300 mm, 450 mm and 600 mm standard. Other widths available by request.
<b>Fittings:</b>	A full range of fittings are available e.g bends, risers, tees, crosses & reducers.
<b>Radius:</b>	300 mm radius standard for rail in. 450 mm radius standard for rail out. Other radii available by request.
<b>Accessories:</b>	Flat or peak covers available for ladders & fittings. Barrier strips. Hold down clamps.

### When Ordering

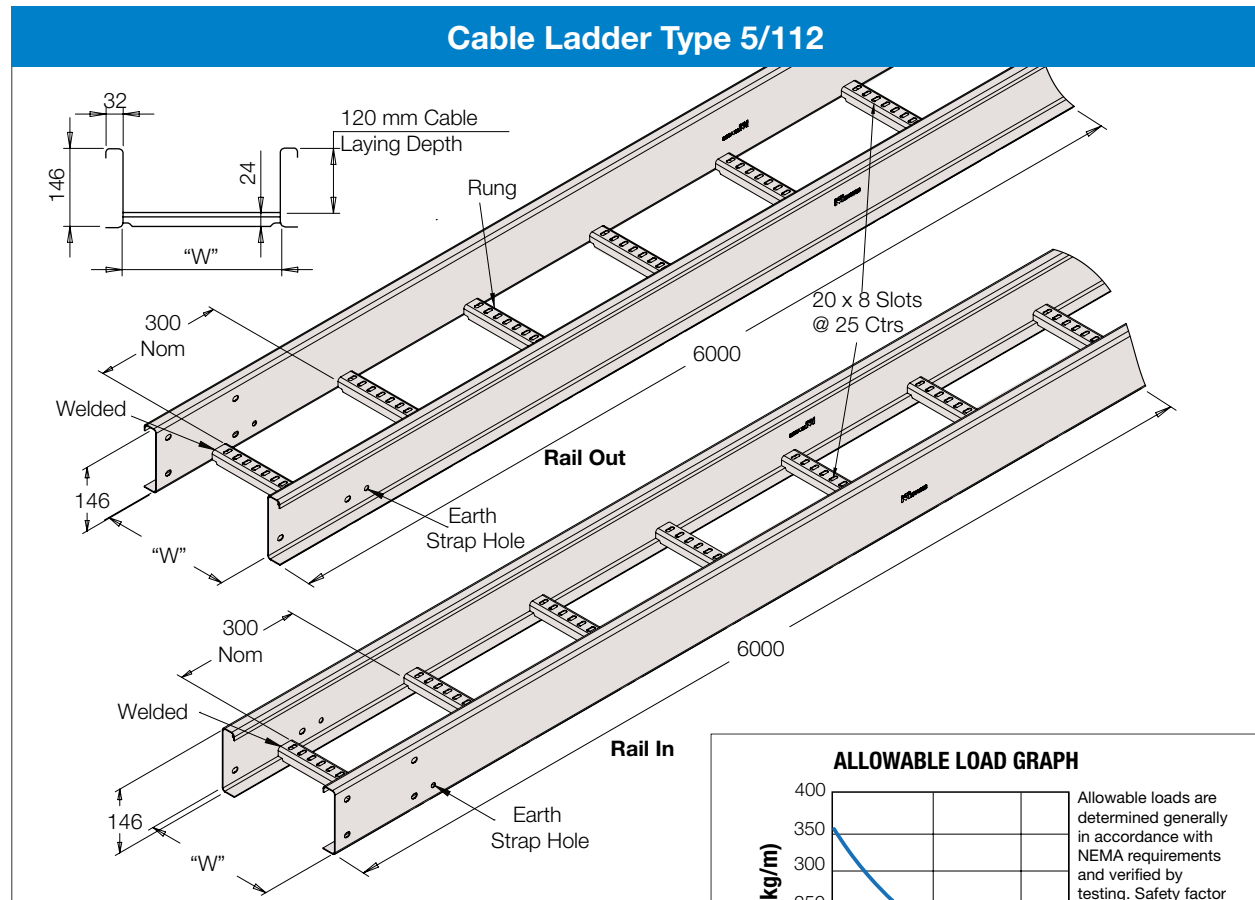
Range	Type	Size	Finish	Rail Direction
<b>4CL</b>	<b>L</b>	<b>15</b>	<b>S</b>	<b>RI</b>
4CL = 4/70L 130 mm High Side 1.6 mm Gauge	L = Straight Length	15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm 75 = 750 mm 90 = 900 mm	S = 316 Stainless Steel	RI = Rail In RO = Rail Out

Ordering example shown 4/70L Cable Ladder 150 mm Wide 316 Stainless Steel Rail In

E.&O.E.

# Cable Ladder Extra Heavy Duty Type 5/112 20C

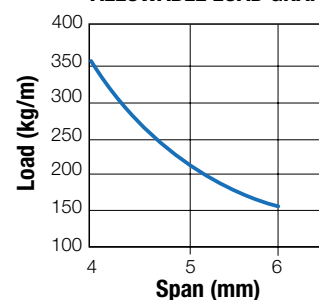
## 2.0 mm Stainless Steel 316 Grade



### Specification

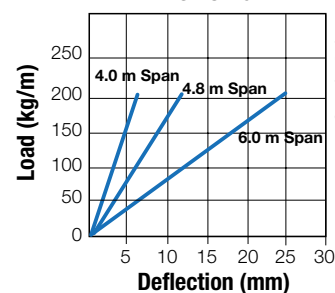
<b>Class Designation:</b>	Cable ladder-medium to heavy duty type 5/112.
<b>Material:</b>	316 stainless steel sheet.
<b>Finish:</b>	Natural.
<b>Rung Spacing:</b>	300 mm spacings with slotted rung standard.
<b>Inside Depth:</b>	120 mm cable laying depth.
<b>Stock Length:</b>	6000 mm standard, joining together by full strength splice plates.
<b>Stock Widths:</b>	150 mm, 300 mm, 450 mm and 600 mm standard. Other widths available by request.
<b>Fittings:</b>	A full range of fittings are available e.g bends, risers, tees, crosses and reducers.
<b>Radius:</b>	300 mm radius standard for rail in. 450 mm radius standard for rail out. Other radii available by request.
<b>Accessories:</b>	Flat or peak covers available for ladders and fittings. Barrier strips. Hold down clamps.

**ALLOWABLE LOAD GRAPH**



Allowable loads are determined generally in accordance with NEMA requirements and verified by testing. Safety factor = 1.5 over collapse load for single span.

**DEFLECTION GRAPH**



Deflections shown apply to the end bays (worst case) of a continuous ladder run. To find deflection of a single span, multiply by 2.5.

### When Ordering

Range	Type	Size	Finish	Rail Direction
<b>5C</b>	<b>L</b>	<b>15</b>	<b>S</b>	<b>RI</b>
5C = 5/112 146 mm High Side 2.0 mm Gauge	L = Straight Length	15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm 75 = 750 mm 90 = 900 mm	S = 316 Stainless Steel	RI = Rail In RO = Rail Out

Ordering example shown 5/112 Cable Ladder 150 mm Wide 316 Stainless Steel Rail In

E.&O.E.

## Cable Ladder Aluminium

### General Description

The Kounis Metal Industries Aluminium Cable Ladder System was developed for use in commercial, industrial & mining applications where the surrounding environment calls for a higher level of protection against corrosion.

Its superior support strength and open ventilation allows for effortless installation of electrical cables and or pipe work.

The finished product is constructed from 6106-T6 Extruded Aluminium Alloy side rail sections with rungs welded at 300 mm continuous spacings. Surface treatment is post production pickling and passivation with the focus of ensuring all weld joints are clean to achieve a maximum life span from the installation.

Standard features:

- 6 m length
- Self-splicing Bend, Riser, Tee & Cross Fittings.
- Rail in or rail out option
- Earthing holes at point of connection on straight lengths as well as fittings
- Channel type rung offering superior strength
- 25 mm rung tie off centres to allow maximum tie off options
- Use of stainless steel fixings required
- A full range of flat and peak covers are available for straight lengths and fittings

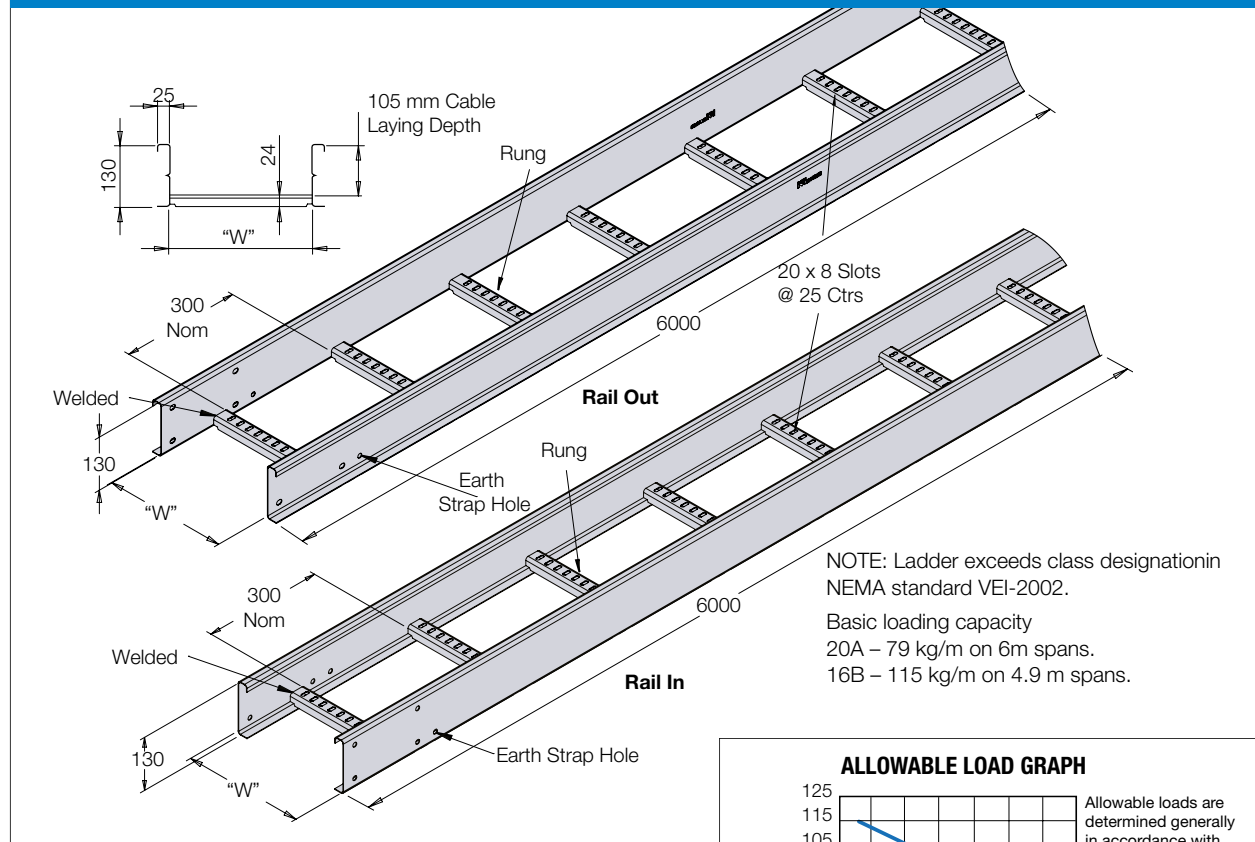
All fitting radius measurements are to the internal side rail, stock standard radius varies depending on cable ladder system type and branch standard. All other listed radius options are made to firm order.

Load capacities and deflection graphs are published by type and can be found on the straight length page for the associated cable ladder system.

Tested to NEMA VE1 Standards. Full engineering details are available on request.

## Cable Ladder Heavy Duty Type 4/70A (NEMA 20A & 16B) 6106 – T6 Aluminium

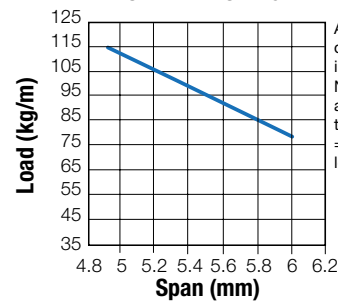
### Cable Ladder Type 4/70A



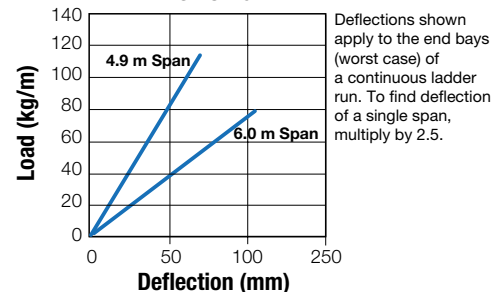
### Specification

<b>Class designation:</b>	Cable ladder-medium to heavy duty type 4/70A NEMA Classification 20A and 16B.
<b>Material:</b>	6106-T6 Marine Grade Aluminum Alloy Grade 316 Stainless Steel fastenings
<b>Finish:</b>	Standard Mill Finish
<b>Rung spacing:</b>	300 mm spacings with slotted rungs standard.
<b>Inside depth:</b>	105 mm cable laying depth.
<b>Stock length:</b>	6000 mm standard, joining together by full strength splice plates
<b>Stock widths:</b>	150 mm, 300 mm, 450 mm and 600 mm standard.
<b>Fittings:</b>	A full range of fittings are available e.g bends, risers, tees, crosses and reducers all self splicing.
<b>Radius:</b>	300 mm radius standard for rail in. 450 mm radius standard for rail out.

#### ALLOWABLE LOAD GRAPH



#### DEFLECTION GRAPH



### When Ordering

Range	Type	Size	Finish	Rail Direction
<b>4C</b>	<b>L</b>	<b>15</b>	<b>A</b>	<b>RI</b>
4C = 4/70A 130 mm High Side 2.0 mm	L = Straight Length	15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm 75 = 750 mm 90 = 900 mm	A = Aluminium	RI = Rail In RO = Rail Out

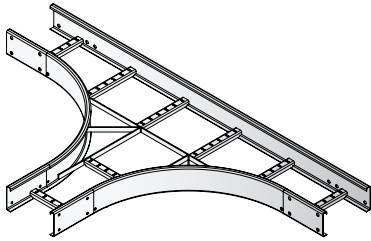
Ordering example shown 4/70A Cable Ladder 150 mm Wide Aluminium Rail In

E.&O.E.

## Notes

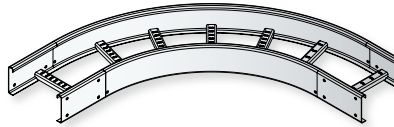
## SECTION 5: Structural Ladder Systems

Tee



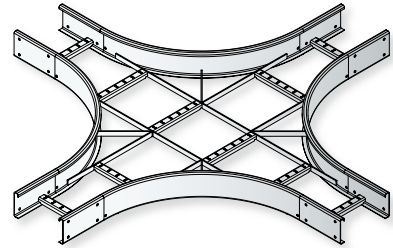
> 5:3

Bend



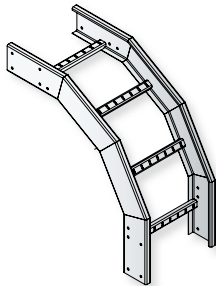
> 5:3

Cross



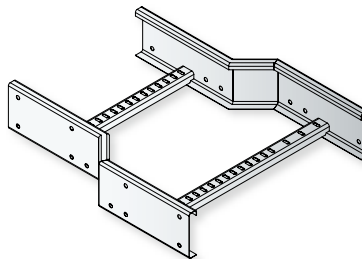
> 5:4

Risers



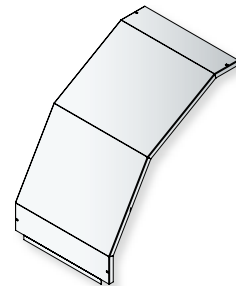
> 5:4

Reducers



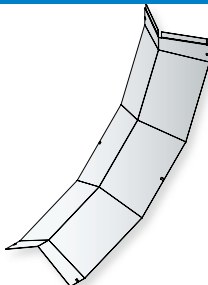
> 5:5

Riser Flat Covers



> 5:6

Riser Peak Covers



> 5:7

# Structural Ladder Fittings and Covers

## General Description

The Kounis Metal Industries Structural Cable Ladder Fittings and Covers were developed for use in heavy commercial, industrial & heavy mining applications. Structural fittings are ideal where standard flat strip fittings are deemed to be too light for heavy applications not meeting the load and deflection requirements of the installation.

The Structural Fitting range has been designed utilizing the structural capabilities of the side rail section following the same profile used on straight lengths of cable ladder to allow the fitting to be more rigid and self-supporting for large radius installation.

The Structural Fitting range is available to suit **Type 4/70L** 1.6 mm 130 mm Side (NEMA 20B), **Type 4/70** 2.0 mm 130 mm Side (NEMA 20B) and **Type 5/112** 146 mm Side (NEMA 20C) all of which offer the following standard features:

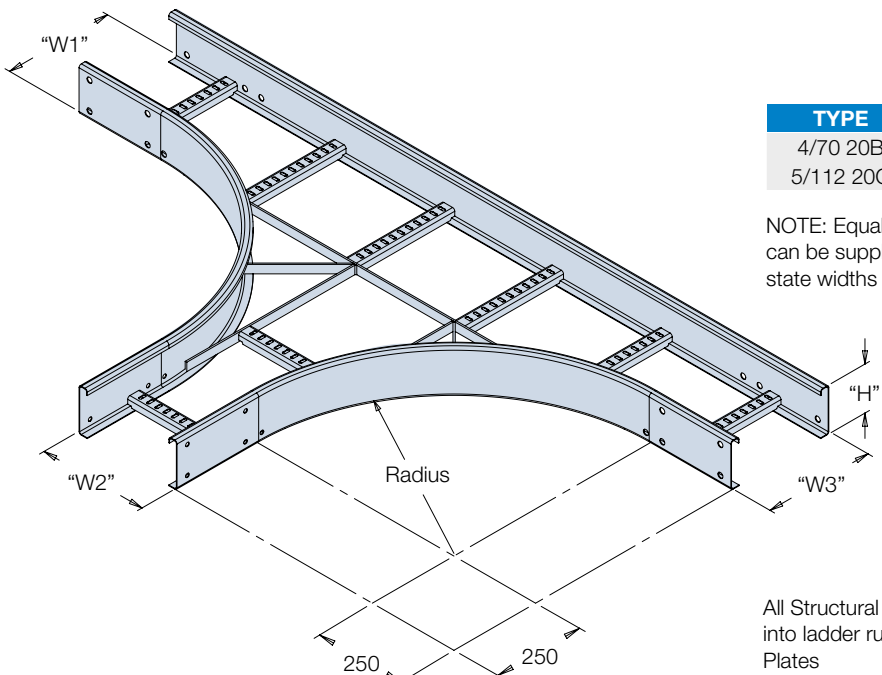
- Hot Dipped Galvanised, 316 Grade Stainless Steel and Aluminium Construction
- 8 bolt splice plate connection
- Rail in or rail out option
- Earthing holes at all points of connection
- Channel type rung offering superior strength
- 25 mm rung tie off centres to allow maximum tie off options
- A full range of flat and peak covers for straight lengths and fittings are available. (Structural fitting covers in this section are specific to Internal and external risers)
- Engineer certification to withstand certain cyclonic conditions (only available for Type 4/70 & 5/112, minimum installation requirements apply)

All fitting radius measurements are to the internal side rail, stock standard radius varies depending on cable ladder system type and branch standard. All other listed radius options are made to firm order.



## Structural Ladder Fittings

### Tee

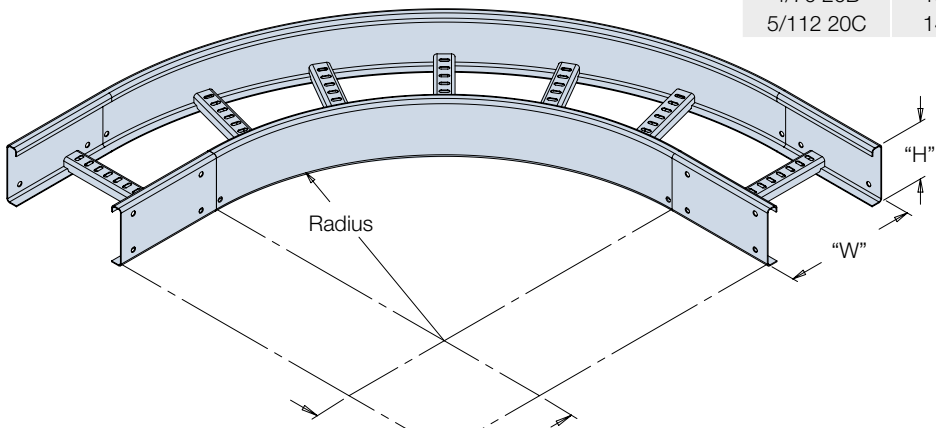


TYPE	HEIGHT
4/70 20B	130 mm
5/112 20C	146 mm

NOTE: Equal or unequal tees can be supplied. When ordering state widths W1 x W2 x W3

All Structural Fittings are connected into ladder run by standard Splice Plates

### Bend



TYPE	HEIGHT
4/70 20B	130 mm
5/112 20C	146 mm

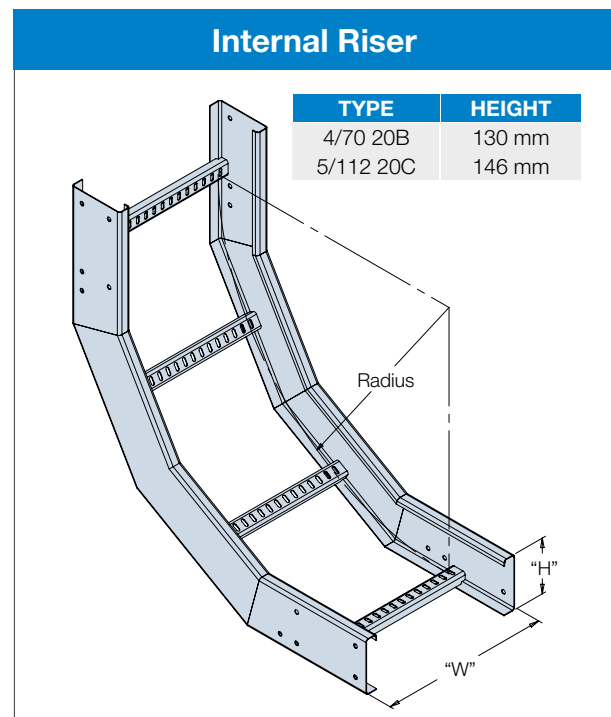
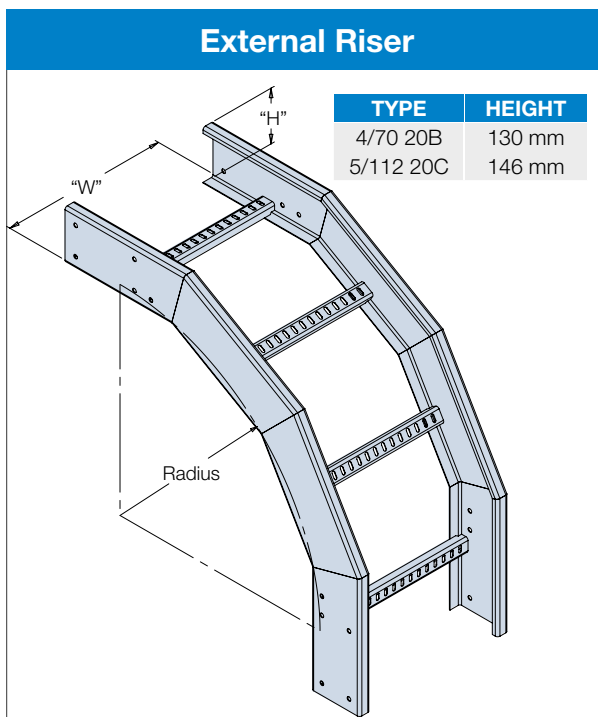
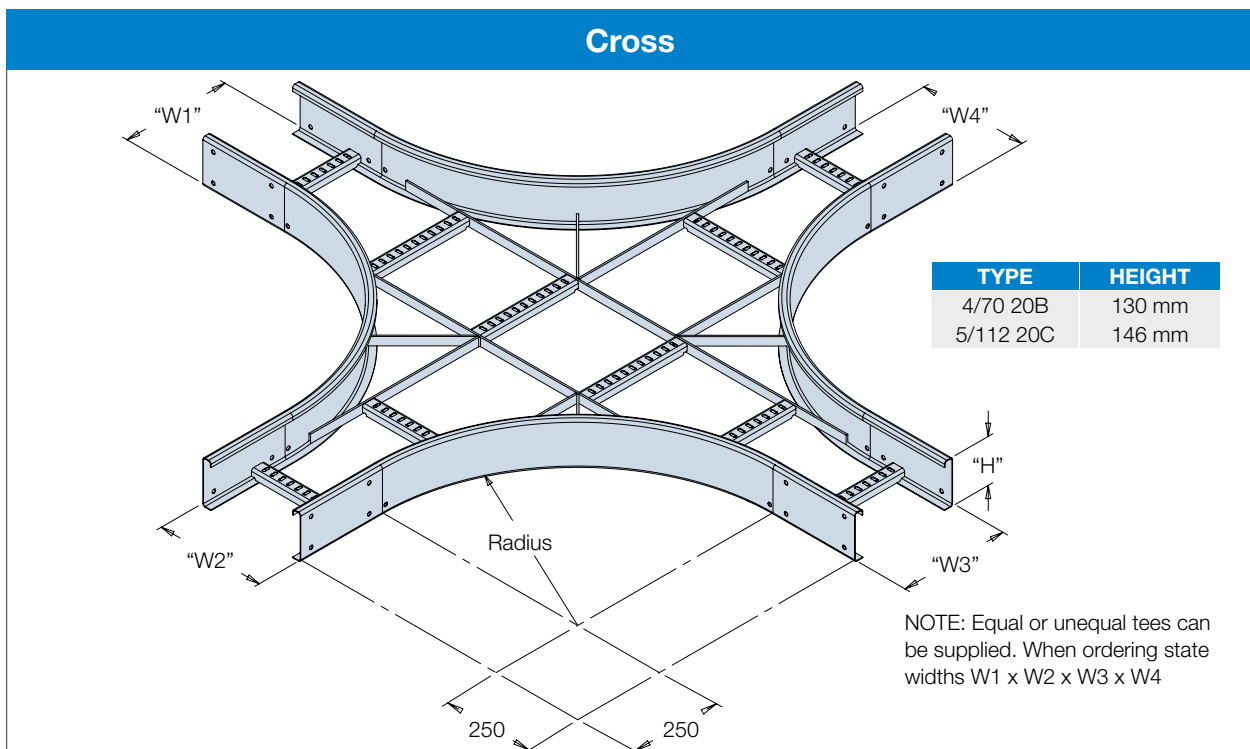
### When Ordering

Range	Type	Size	Finish	Rail Direction	Radius
<b>4D</b>	<b>T</b>	<b>15</b>	<b>H</b>	<b>RI</b>	<b>6</b>
4D = 4/70 Structural 130 mm High Side	T = Tee	15 = 150 mm	H = Hot Dip Galv	RI = Rail In	6 = 600 mm
5D = 5/112 Structural 146 mm High Side	B = Bend	30 = 300 mm	S = 316 Stainless Steel	RO = Rail Out	9 = 900 mm
		45 = 450 mm	A = Aluminium		
		60 = 600 mm	P = Painted		
		75 = 750 mm			
		90 = 900 mm			

Ordering example shown 4/70 Structural Cable Ladder Tee 150 mm Wide Hot Dip Galvanised Rail In 600 mm Radius

E.&O.E.

## Structural Ladder Fittings



All Structural Fittings are connected into ladder run by standard Splice Plates

### When Ordering

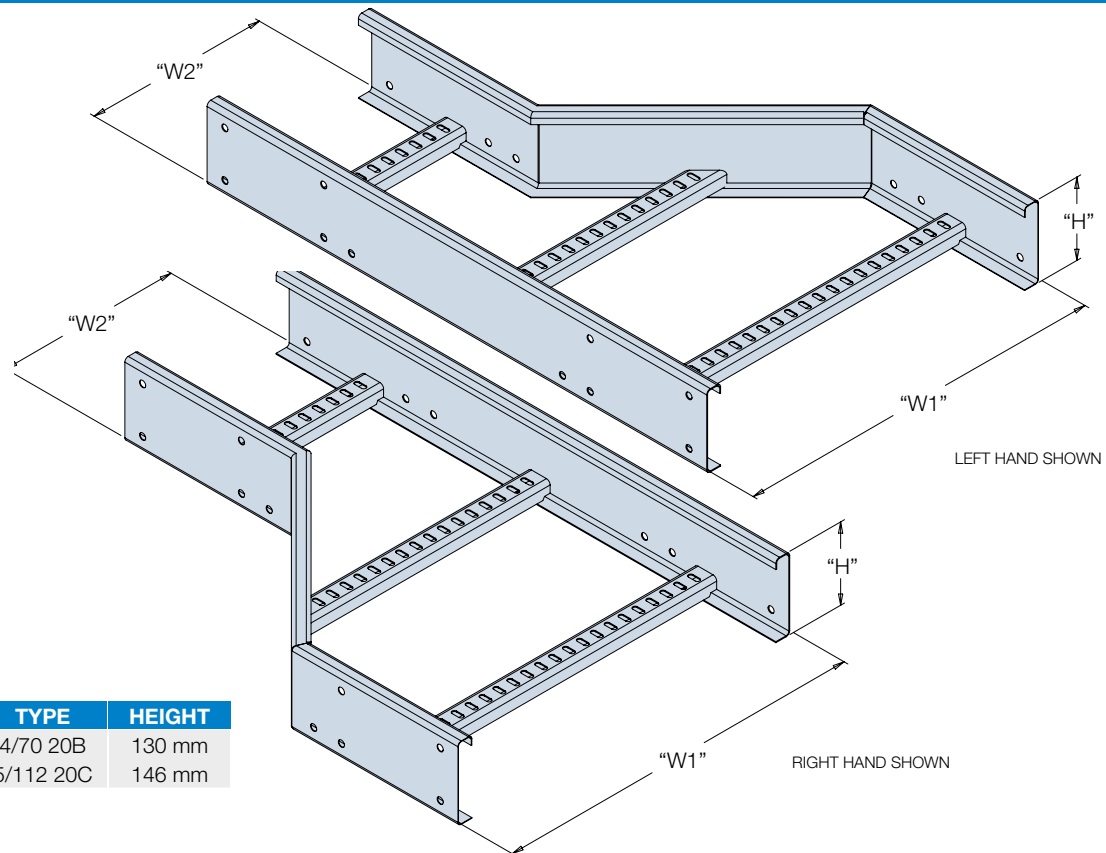
Range	Type	Size	Finish	Rail Direction	Radius
<b>4D</b>	<b>C</b>	<b>15</b>	<b>H</b>	<b>RI</b>	<b>6</b>
4D = 4/70 Structural 130 mm High Side	C = Cross	15 = 150 mm	H = Hot Dip Galv	RI = Rail In	6 = 600 mm
5D = 5/112 Structural 146 mm High Side	RX = External Riser	30 = 300 mm	S = 316 Stainless Steel	RO = Rail Out	9 = 900 mm
	RI = Internal Riser	45 = 450 mm	A = Aluminium		
		60 = 600 mm	P = Painted		
		75 = 750 mm			
		90 = 900 mm			

Ordering example shown 4/70 Structural Cable Ladder Cross 150 mm Wide Hot Dip Galvanised Rail In 600 mm Radius

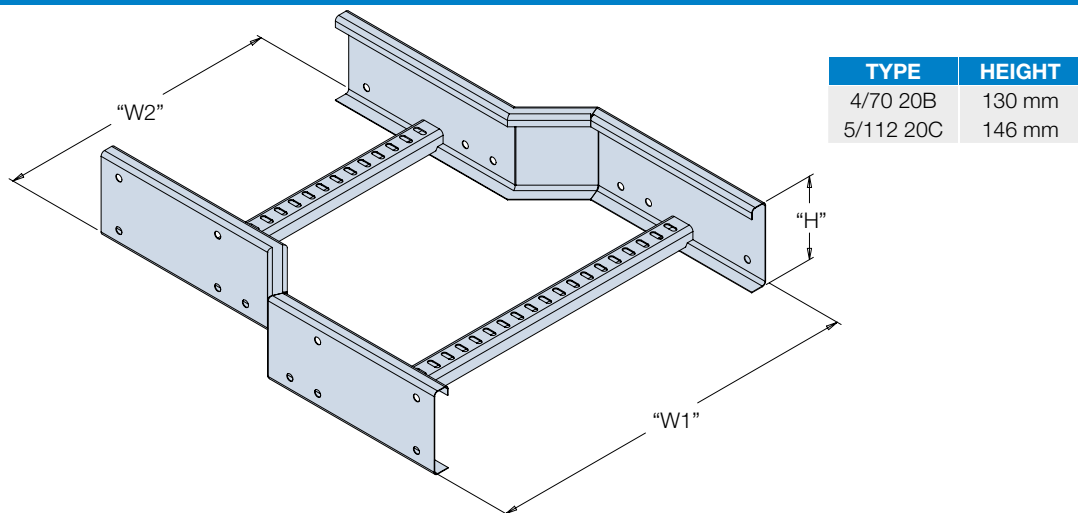
E.&O.E.

## Structural Ladder Fittings

### Offset Reducer



### Straight Reducer



### When Ordering

All Structural Fittings are connected into ladder run by standard Splice Plates

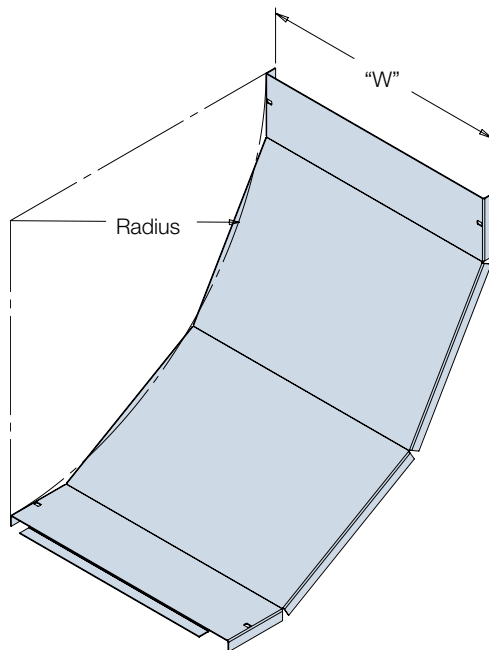
Range	Type	Size	Finish	Rail Direction
<b>4D</b>	<b>SR</b>	<b>3015</b>	<b>H</b>	<b>RI</b>
4D = 4/70 Structural 130 mm High Side	SR = Straight Reducer RR = Right Reducer LR = Left Reducer	3015 = 300 to 150mm 4530 = 450 to 300mm 6045 = 600 to 450mm 7560 = 750 to 600mm 9075 = 900 to 750mm	H = Hot Dip Galv S = 316 Stainless Steel A = Aluminium P = Painted	RI = Rail In RO = Rail Out
5D = 5/112 Structural 146 mm High Side				

Ordering example shown 4/70 Cable Ladder Straight Reduction 300 to 150 mm Wide Hot Dip Galvanised Rail In 600 mm

E.&O.E.

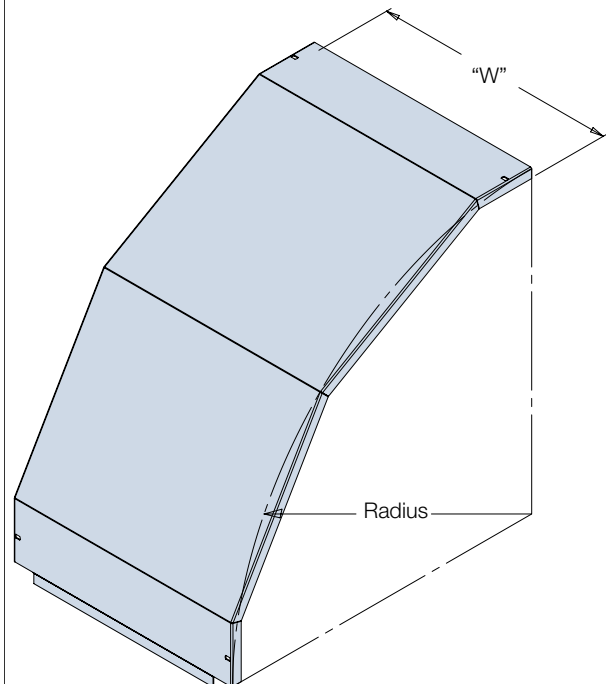
## Structural Cable Ladder Flat Fitting Covers

### Internal Riser Flat Cover



NOTE: Structural Peak and Flat Riser Covers are unique to the structural fitting range. Please refer to Section 6 for all other structural fitting covers.

### External Riser Flat Cover



NOTE: Structural Peak and Flat Riser Covers are unique to the structural fitting range. Please refer to Section 6 for all other structural fitting covers.

Covers can also be supplied in Stainless Steel or Aluminium to order.

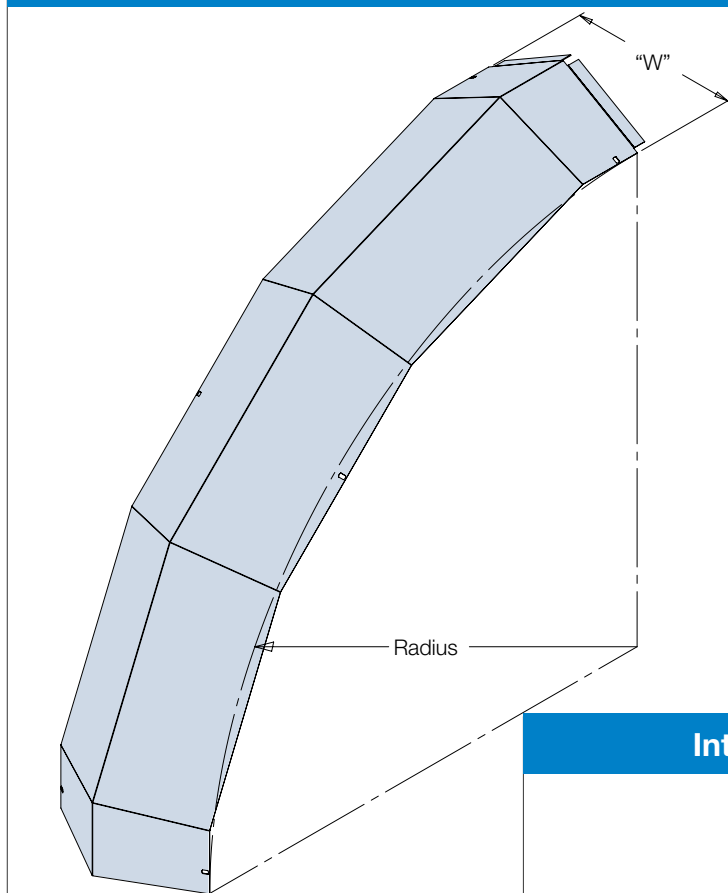
### When Ordering

Range	Cover Type	Fitting Type	Size	Material	Finish	Rail Direction	Radius
<b>4D</b>	<b>FC</b>	<b>RI</b>	<b>15</b>	<b>L</b>	<b>G</b>	<b>RI</b>	<b>6</b>
4D = 4/70	FC = Flat Cover	RI = Internal Riser	15 = 150 mm	L = 0.6 mm Thick	G = Galvabond	RI = Rail In	6 = 600 mm
Structural 130 mm High Side		RX = External Riser	30 = 300 mm	M = 1.2 mm Thick	H = Hot Dip Galv	RO = Rail Out	9 = 900 mm
5D = 5/112			45 = 450 mm	H = 1.6 mm Thick	S = 316		
Structural 146 mm High Side			60 = 600 mm		Stainless Steel		
			75 = 750 mm		A = Aluminium		
			90 = 900 mm		P = Painted		

Ordering example shown 4/70 Flat Cover Internal Riser 150 mm Wide Light Galvabond Rail In 600 mm radius

# Structural Cable Ladder Peak Fitting Covers

## External Riser Peak Cover

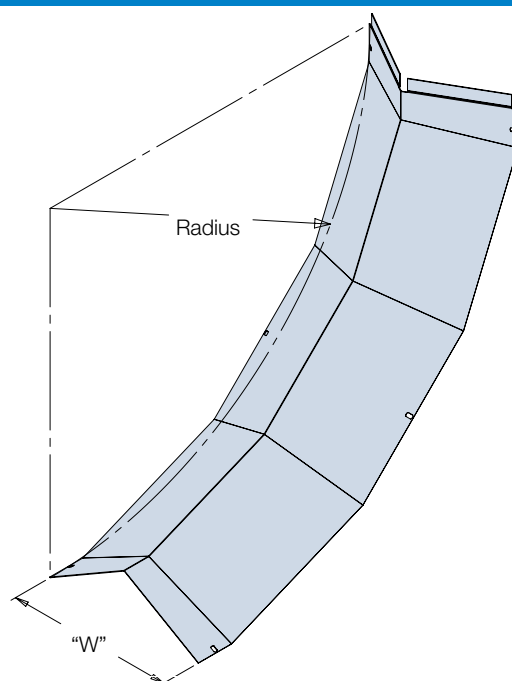


NOTE: Structural Peak and Flat Riser Covers are unique to the structural fitting range. Please refer to Section 6 for all other structural fitting covers.

NOTE: Structural Peak and Flat Riser Covers are unique to the structural fitting range. Please refer to Section 6 for all other structural fitting covers.

Covers can also be supplied in Stainless Steel or Aluminium to order.

## Internal Riser Peak Cover



## When Ordering

Range	Cover Type	Fitting Type	Size	Material	Finish	Rail Direction	Radius
<b>4D</b>	<b>PC</b>	<b>RX</b>	<b>15</b>	<b>L</b>	<b>G</b>	<b>RI</b>	<b>6</b>
4D = 4/70 Structural 130 mm High Side 5D = 5/112 Structural 146 mm High Side	PC = Peak Cover	RX = External Riser RX = Internal Riser	15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm 75 = 750 mm 90 = 900 mm	L = 0.6mm Thick M = 1.2mm Thick H = 1.6mm Thick	G = Galvabond H = Hot Dip Galvanised S = 316 Stainless Steel A = Aluminium P = Painted	RI = Rail In RO = Rail Out	6 = 600 mm 9 = 900 mm

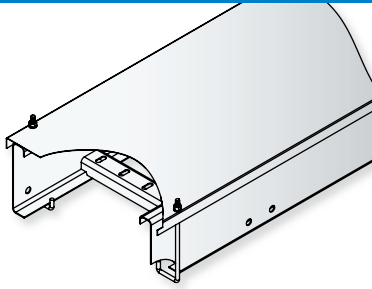
Ordering example shown 4/70 Peak Cover External Riser 150 mm Wide Light Galvabond Rail In 600 mm radius

E.&O.E.

## Notes

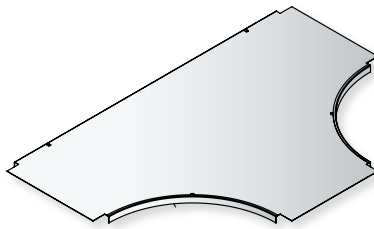
## SECTION 6: Cable Ladder Covers

Flat Cover



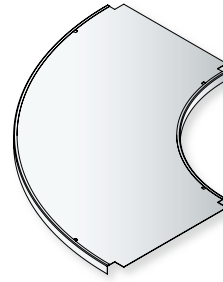
> 6:2

Tee Flat Cover



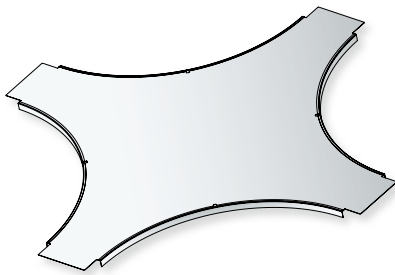
> 6:3

Bend Flat Cover



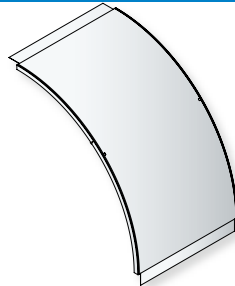
> 6:3

Cross Flat Cover



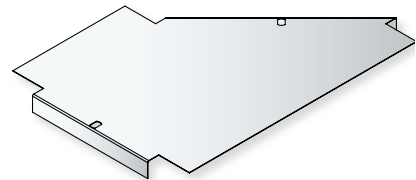
> 6:3

Risers Flat Cover



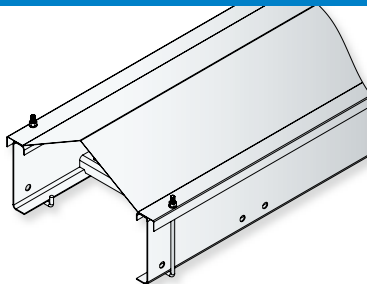
> 6:4

Reducers Flat Cover



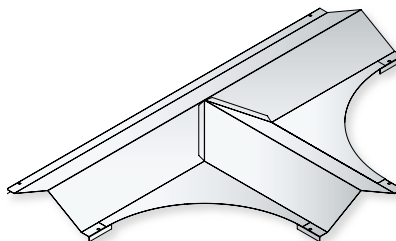
> 6:4

Peak Cover



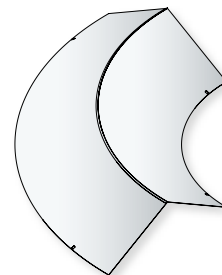
> 6:5

Tee Peak Cover



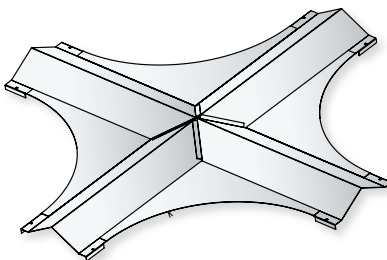
> 6:6

Bend Peak Cover



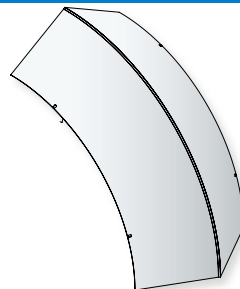
> 6:6

Cross Peak Cover



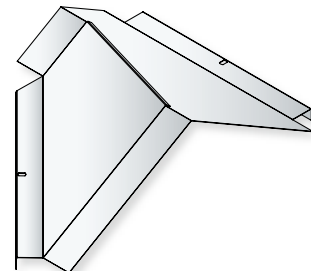
> 6:6

Risers Peak Cover



> 6:7

Reducers Peak Cover



> 6:7



# Cable Ladder Flat & Peak Covers

## General Description

The Kounis Metal Industries Cable Ladder Cover range was developed to suit all installations that require physical and ultraviolet protection from the surrounding environment.

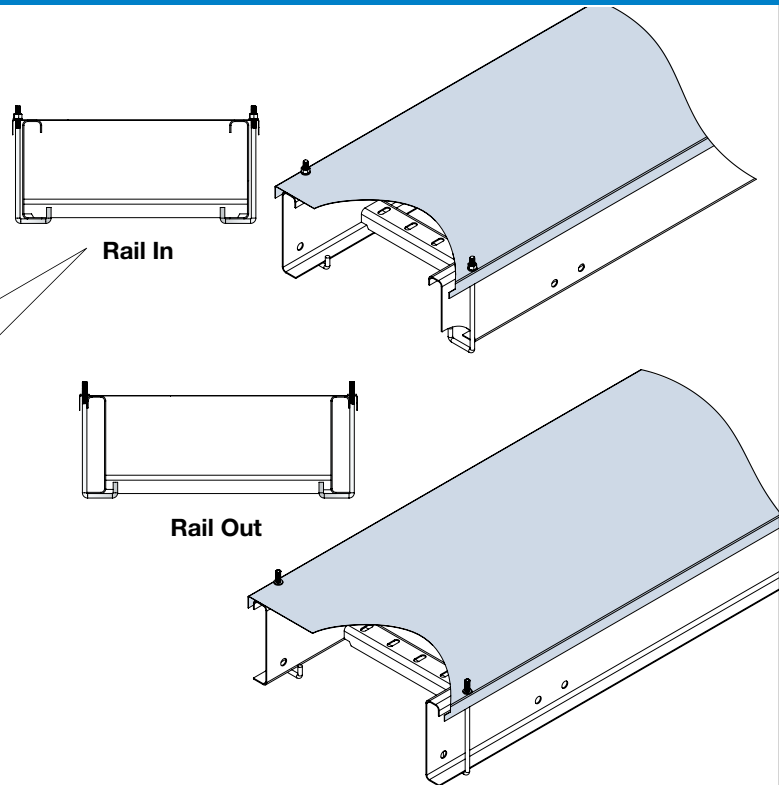
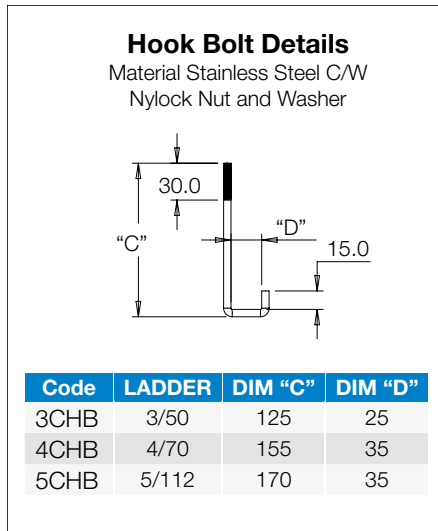
The finished product is constructed from a variety of material thicknesses ranging from; **Light Duty** 0.6 mm, **Medium Duty** 1.2 mm and **Heavy Duty** 1.6 mm and finishes to suit any application or environment; **Galvabond**, Mild Steel **Hot Dip Galvanised**, 316 Grade **Stainless Steel** and **Aluminium**. All of which offer the following standard features and options:

- 3 m length
- Option of hook bolt or snug fit metal tek screw attachment
- Option of Flat or 30° peak
- Also available in 15° and 45° peak made to order
- Option of ventilation louvers
- A full range of fitting covers flat or peaked
- Engineer certification to withstand cyclonic area importance level 2 wind terrain category 1 conditions (Covers are recommended to be 1.6 mm thick Hot Dip Galvanised and minimum installation requirements apply see below table)

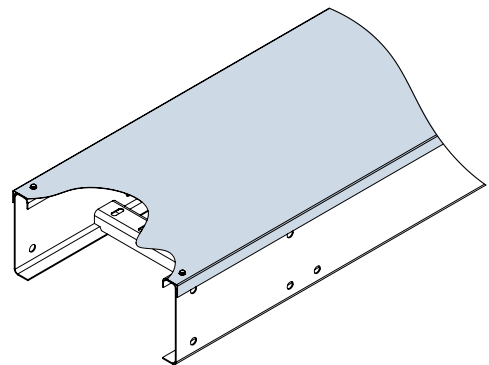
COVER WIDTH "W"	MINIMUM NUMBER OF HOOK BOLT ATTACHMENTS PER STRAIGHT COVER
150 & 300 mm wide	6
450 & 600 mm wide	8

## Cable Ladder Flat Covers

### Flat Cover Hook Bolt Fixing



### Flat Cover Snug Fit Fixing



Optional snug fit with self tapping screws

Flat cover lengths can be supplied with ventilation louvres to order.

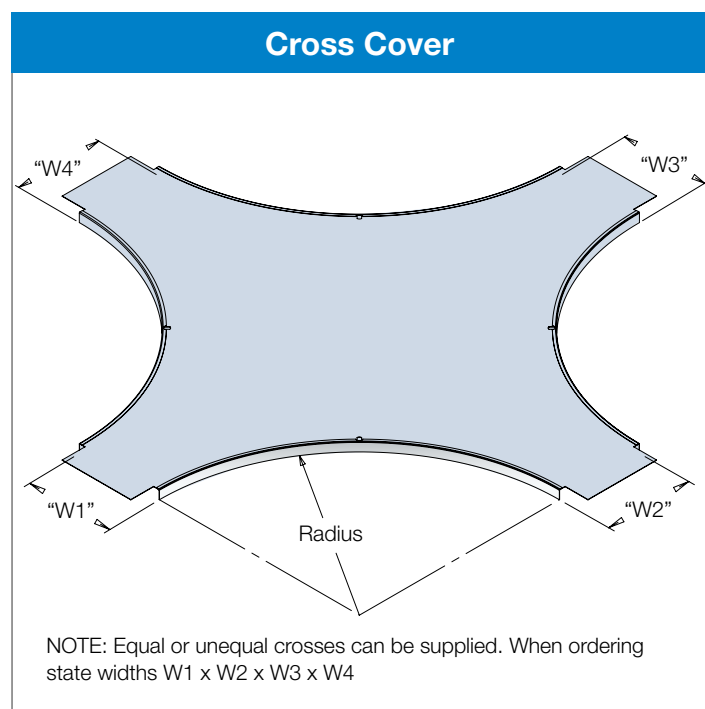
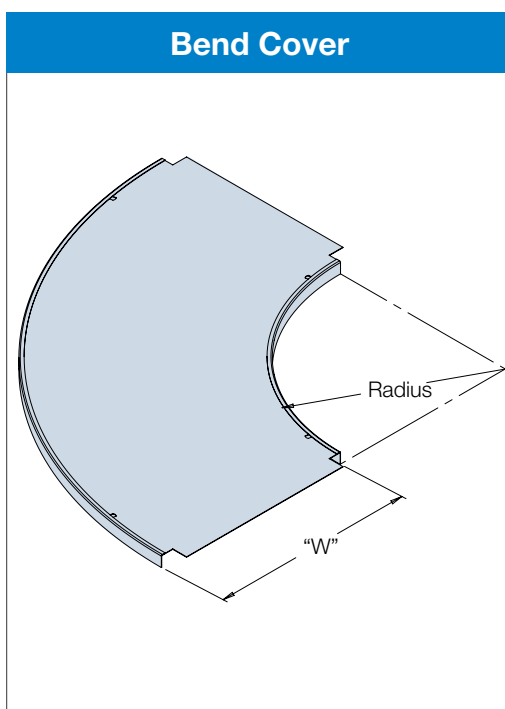
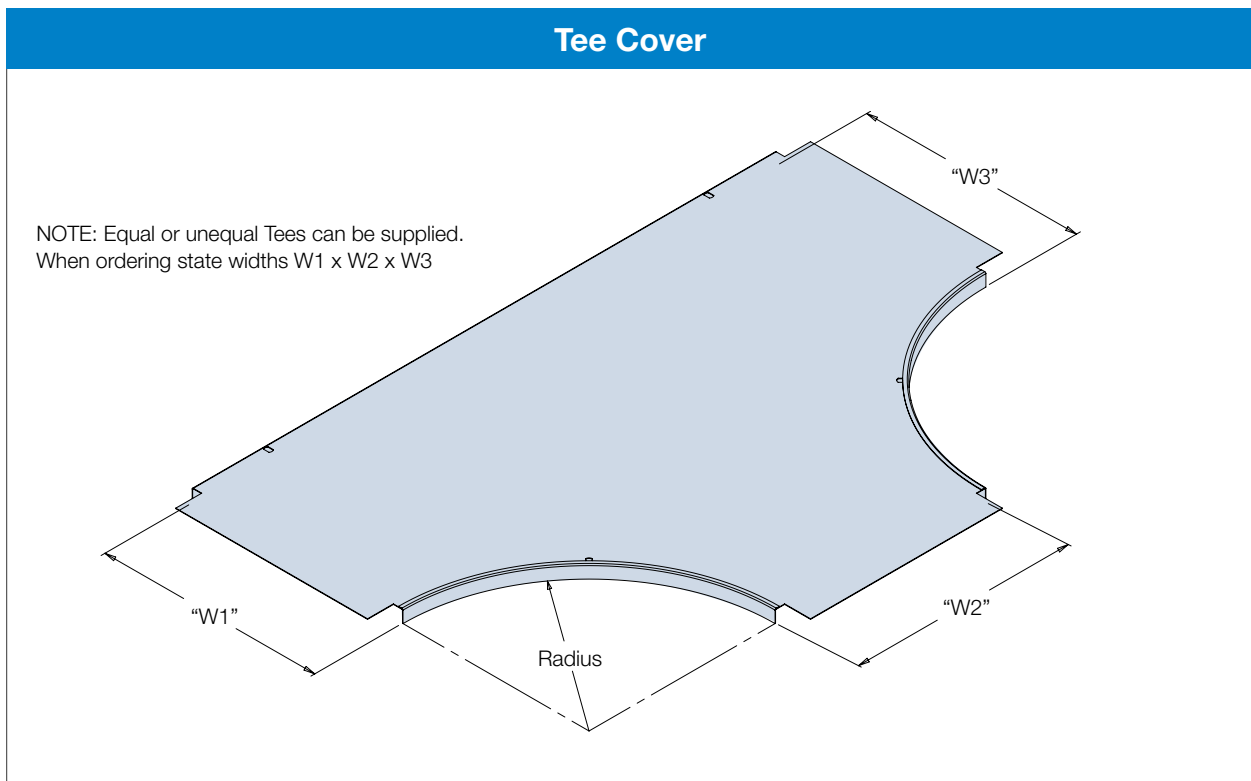
### When Ordering

Range	Type	Size	Material Thickness	Finish	Rail Direction
<b>2</b>	<b>FC</b>	<b>15</b>	<b>L</b>	<b>G</b>	<b>RI</b>
2 = 2/30	FC = Flat Cover	15 = 150 mm	L = 0.6 mm	G = Galvabond	RI = Rail In
3 = 3/50	FCV = Flat Cover Vented Louvers	30 = 300 mm	M = 1.2 mm	H = Hot Dip Galv	RO = Rail Out
4 = 4/70		45 = 450 mm	H = 1.6 mm	S = 316 Stainless Steel	
5 = 5/112		60 = 600 mm		A = Aluminium	
		75 = 750 mm		P = Painted	
		90 = 900 mm			

Ordering example shown 2/30 Cable Ladder Flat Cover 150 mm Wide Light Duty Galvabond Rail In

E.&O.E.

# Cable Ladder Flat Cover Fittings



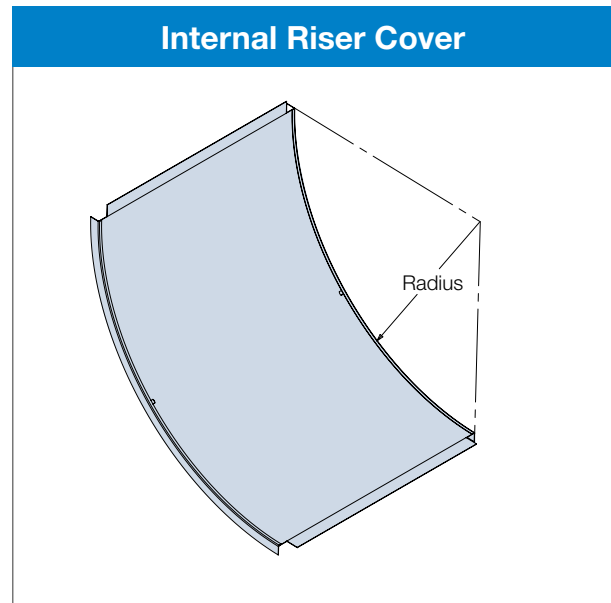
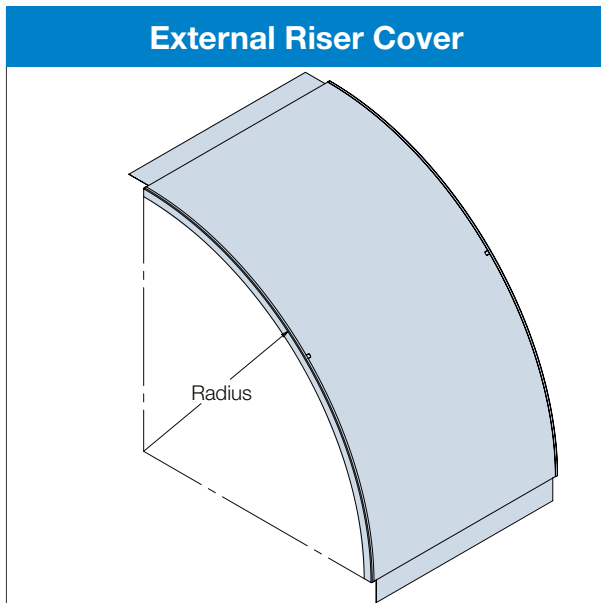
## When Ordering

Range	Type	Fitting Type	Size	Material Thickness	Finish	Rail Direction	Radius
<b>2</b>	<b>FC</b>	<b>T</b>	<b>15</b>	<b>L</b>	<b>G</b>	<b>RI</b>	<b>3</b>
2 = 2/30	FC = Flat Cover	T = Tee	15 = 150 mm	L = 0.6 mm	G = Galvabond	RI = Rail In	3 = 300 mm
3 = 3/50		B = Bend	30 = 300 mm	M = 1.2 mm	H = Hot Dip Galv	RO = Rail Out	4 = 450 mm
4 = 4/70		C = Cross	45 = 450 mm	H = 1.6 mm	S = 316 Stainless Steel		6 = 600 mm
5 = 5/112			60 = 600 mm		A = Aluminium		9 = 900 mm
			75 = 750 mm		P = Painted		
			90 = 900 mm				

Ordering example shown 2/30 Flat Cover Tee 150 mm Wide Light Galvabond Rail In 300 mm radius

E.&O.E.

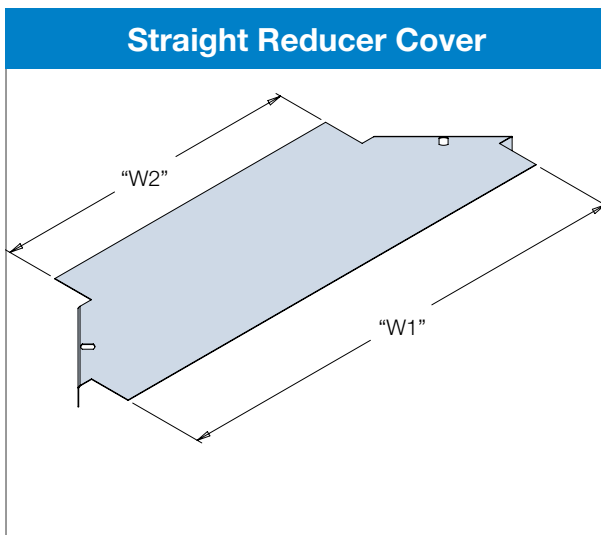
## Cable Ladder Flat Cover Fittings



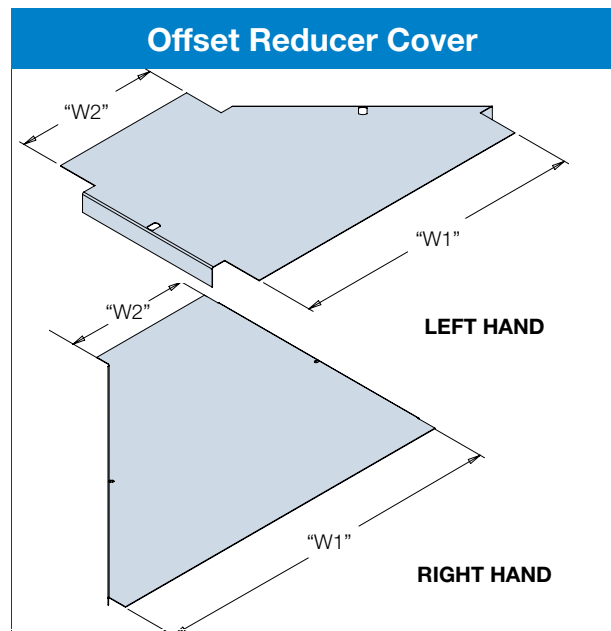
### When Ordering

Range	Type	Fitting Type	Size	Material Thickness	Finish	Rail Direction	Radius
<b>2</b>	<b>FC</b>	<b>RX</b>	<b>15</b>	<b>L</b>	<b>G</b>	<b>RO</b>	<b>3</b>
2 = 2/30	FC = Flat Cover	RX = External Riser RI = Internal Riser	15 = 150 mm	L = 0.6 mm	G = Galvabond	RI = Rail In RO = Rail Out	3 = 300 mm
3 = 3/50			30 = 300 mm	M = 1.2 mm	H = Hot Dip Galv		4 = 450 mm
4 = 4/70			45 = 450 mm	H = 1.6 mm	S = 316 Stainless Steel		6 = 600 mm
5 = 5/112			60 = 600 mm		A = Aluminium		
			75 = 750 mm		P = Painted		
			90 = 900 mm				

Ordering example shown 2/30 Cable Ladder Flat External Riser Cover 150 mm Wide Light Duty Galvabond Rail Out 300 mm Radius



NOTE: When ordering state widths W1 x W2



### When Ordering

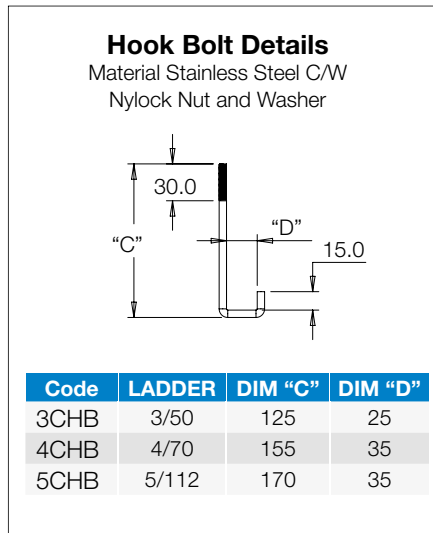
Range	Type	Fitting Type	Size	Material Thickness	Finish	Rail Direction	Radius
<b>2</b>	<b>FC</b>	<b>SR</b>	<b>3015</b>	<b>L</b>	<b>G</b>	<b>RO</b>	<b>3</b>
2 = 2/30	FC = Flat Cover	SR = Straight Reducer	3015 = 300 to 150mm	L = 0.6 mm	G = Galvabond	RI = Rail In RO = Rail Out	
3 = 3/50			4530 = 450 to 300mm	M = 1.2 mm	H = Hot Dip Galv		
4 = 4/70			6045 = 600 to 450mm	H = 1.6 mm	S = 316 Stainless Steel		
5 = 5/112			7560 = 750 to 600mm		A = Aluminium		
			9075 = 900 to 750mm		P = Painted		

Ordering example shown 2/30 Cable Ladder Flat Straight Reducer Cover 300 to 150 mm Wide Light Duty Galvabond Rail Out 300 mm Radius

E.&O.E.

## Cable Ladder Peaked Covers

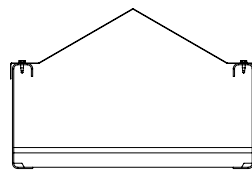
### Peaked Cover Hook Bolt Fixing



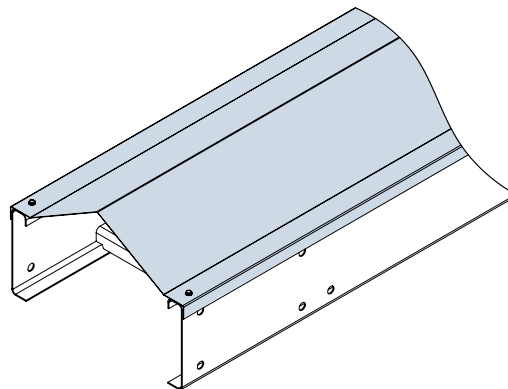
Rail Out

Rail In

### Peaked Cover Snug Fit Fixing



Rail In



Optional snug fit with self tapping screws

### When Ordering

Range	Type	Size	Material Thickness	Finish	Rail Direction
<b>2</b>	<b>PC</b>	<b>15</b>	<b>L</b>	<b>G</b>	<b>RO</b>
2 = 2/30	PC = Peak Cover	15 = 150 mm	L = 0.6 mm	G = Galvabond	RI = Rail In
3 = 3/50	PCV = Peak Cover Vented Louvers	30 = 300 mm	M = 1.2 mm	H = Hot Dip Galv	RO = Rail Out
4 = 4/70		45 = 450 mm	H = 1.6 mm	S = 316 Stainless Steel	
5 = 5/112		60 = 600 mm		A = Aluminium	
		75 = 750 mm		P = Painted	
		90 = 900 mm			

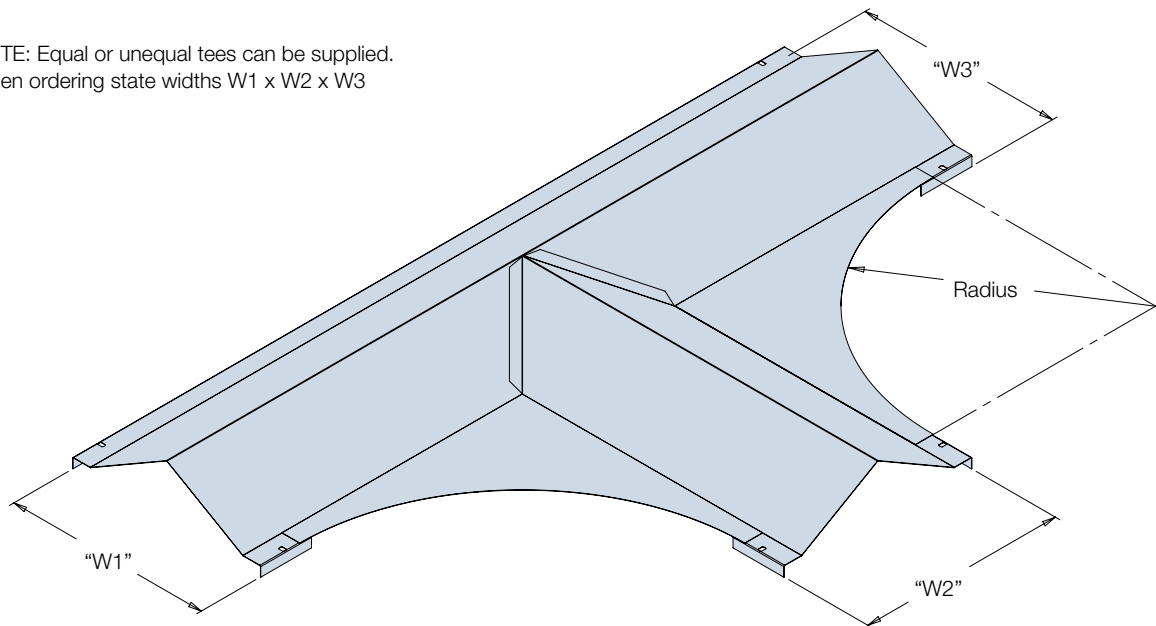
Ordering example shown 2/30 Cable Ladder Peak Cover 150 mm Wide Light Duty Galvabond Rail Out

E.&O.E.

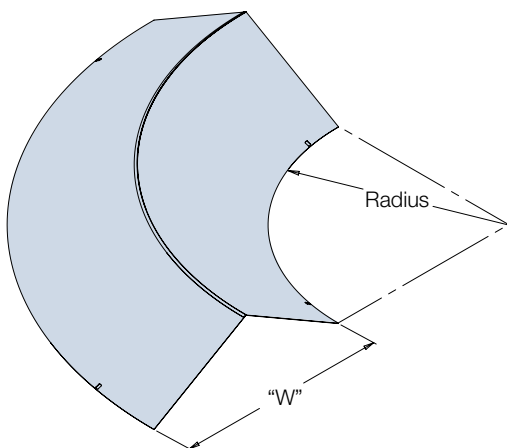
## Cable Ladder Peak Cover Fittings

### Tee Cover

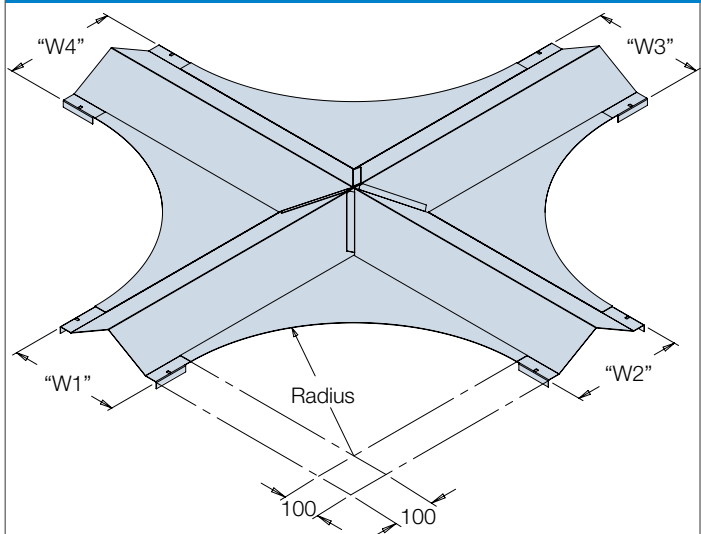
NOTE: Equal or unequal tees can be supplied.  
 When ordering state widths W1 x W2 x W3



### Bend Cover



### Cross Cover



NOTE: Equal or unequal crosses can be supplied. When ordering state widths W1 x W2 x W3 x W4

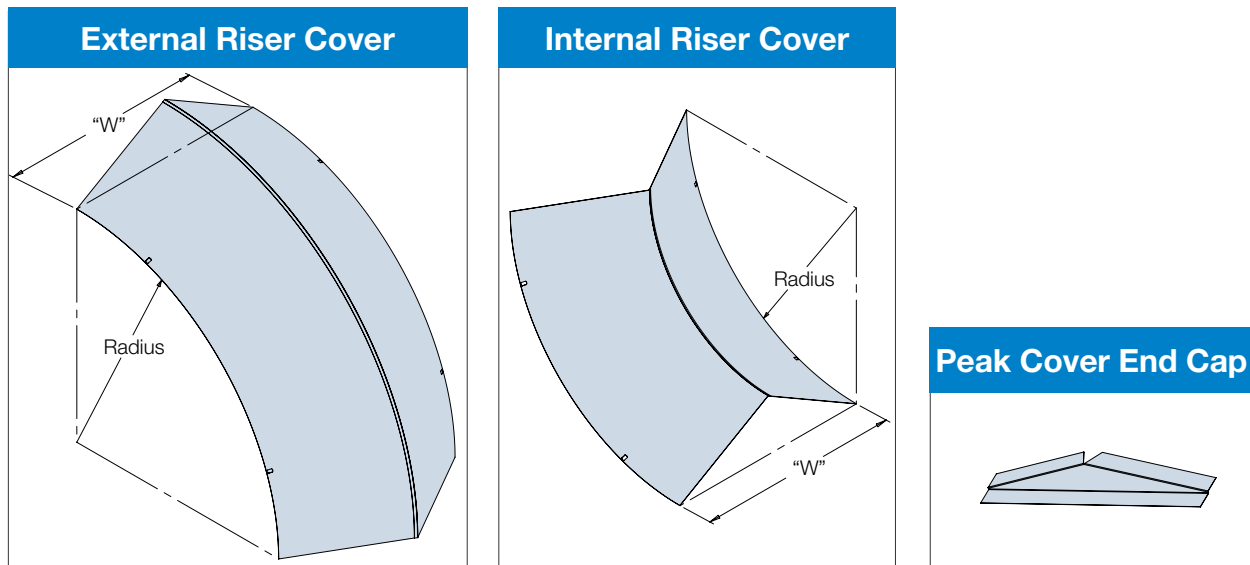
### When Ordering

Range	Type	Fitting Type	Size	Material Thickness	Finish	Rail Direction	Radius
<b>2</b>	<b>PC</b>	<b>T</b>	<b>15</b>	<b>L</b>	<b>G</b>	<b>RI</b>	<b>3</b>
2 = 2/30	PC = Peak Cover	T = Tee	15 = 150 mm	L = 0.6 mm	G = Galvabond	RI = Rail In	3 = 300 mm
3 = 3/50		B = Bend	30 = 300 mm	M = 1.2 mm	H = Hot Dip Galv	RO = Rail Out	4 = 450 mm
4 = 4/70		C = Cross	45 = 450 mm	H = 1.6 mm	S = 316 Stainless Steel		6 = 600 mm
5 = 5/112			60 = 600 mm		A = Aluminium		9 = 900 mm
			75 = 750 mm		P = Painted		
			90 = 900 mm				

Ordering example shown 2/30 Cable Ladder Peak Tee Cover 150 mm Wide Light Duty Galvabond Rail In 300 mm Radius

E.&O.E.

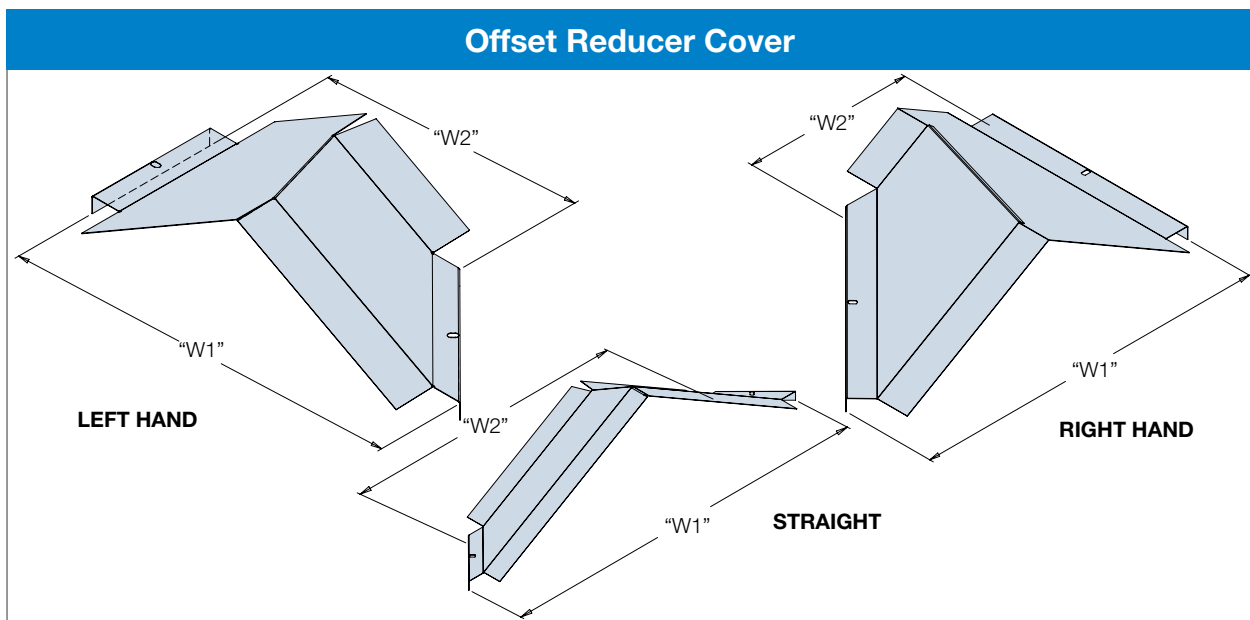
## Cable Ladder Peak Cover Fittings



### When Ordering

Range	Type	Fitting Type	Size	Material Thickness	Finish	Rail Direction	Radius
<b>2</b>	<b>PC</b>	<b>RX</b>	<b>15</b>	<b>L</b>	<b>G</b>	<b>RI</b>	<b>3</b>
2 = 2/30	PC = Peak Cover	RX = External Riser	15 = 150 mm	L = 0.6 mm	G = Galvabond	RI = Rail In	3 = 300 mm
3 = 3/50		RI = Internal Riser	30 = 300 mm	M = 1.2 mm	H = Hot Dip Galv	RO = Rail Out	4 = 450 mm
4 = 4/70		E = End Cap	45 = 450 mm	H = 1.6 mm	S = 316 Stainless Steel		6 = 600 mm
5 = 5/112			60 = 600 mm		A = Aluminium		
			75 = 750 mm		P = Painted		
			90 = 900 mm				

Ordering example shown 2/30 Cable Ladder Peak External Riser Cover 150 mm Wide Light Duty Galvabond Rail In 300 mm radius



### When Ordering

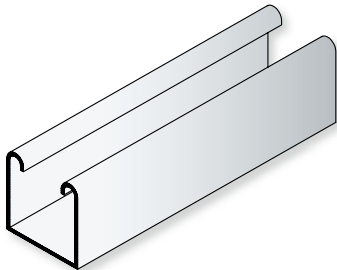
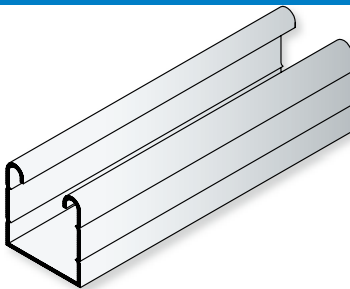
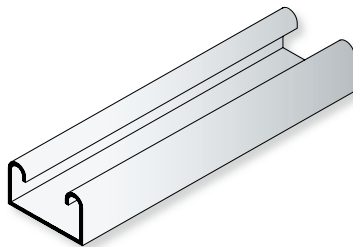
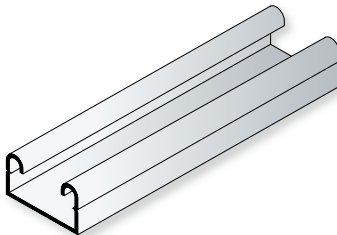
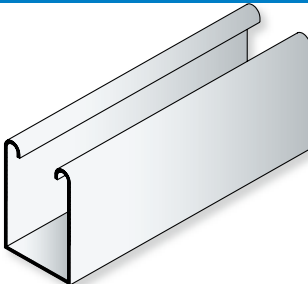
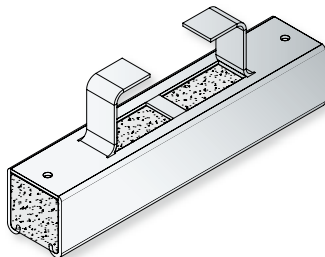
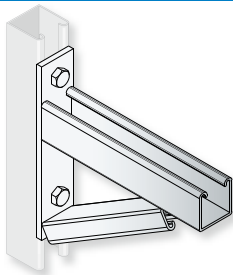
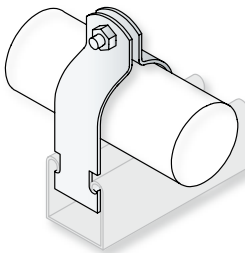
Range	Type	Fitting Type	Size	Material Thickness	Finish	Rail Direction
<b>2</b>	<b>PC</b>	<b>SR</b>	<b>3015</b>	<b>L</b>	<b>G</b>	<b>RI</b>
2 = 2/30	PC = Peak Cover	SR = Straight Reducer	3015 = 300 to 150 mm	L = 0.6 mm	G = Galvabond	RI = Rail In
3 = 3/50		LR = Left Reducer	4530 = 450 to 300 mm	M = 1.2 mm	H = Hot Dip Galv	RO = Rail Out
4 = 4/70		RR = Right Reducer	6045 = 600 to 450 mm	H = 1.6 mm	S = 316 Stainless Steel	
5 = 5/112			7560 = 750 to 600 mm		A = Aluminium	
			9075 = 900 to 750 mm		P = Painted	

Ordering example shown 2/30 Cable Ladder Peak Straight Reducer Cover 300 to 150 mm Wide Light Duty Galvabond

E.&O.E.



## SECTION 7: K-Strut Support Systems

K-1000 Channel	K-2000 Channel	K-3300 Channel
		
> 7:3	> 7:4	> 7:5
K-4000 Channel	K-5500 Channel	Concrete Insert Channel
		
> 7:6	> 7:7	> 7:8
Cantilever Brackets	Pipe Cable & Conduit Clamps	
		
> 7:10	> 7:11	

### K-Strut Fittings

Column Support Applications > 7:12	Hanger Support Applications > 7:13	Channel Carriages Angle Fittings > 7:14
90° Fittings > 7:15	Flat Fittings "U" & "Z" Fittings > 7:16	Winged Shape Fittings / Lighting Supports > 7:17
Joiner Boxes / PVC Accessories > 7:18	Adaptable Beam Clamps / Pipe Clamps > 7:19	Support / Hangers > 7:20
HDG Mild Steel Products > 7:21	Channel Nuts / Stud Nuts > 7:22	Fasteners > 7:23-24
Weight Tables > 7:25-26	Alpha Numeric Listing > 7:27-28	Key Word Index > 7:29

E.&O.E.

# K-Strut Support Systems

## General Description

The Kounis Metal Industries K-Strut Support Systems were designed as a site adaptable mechanical support method; this product range complements almost any installation of Cable, Pipe, HVAC or general support structure.

The key to making any installation easy and ensuring performance of the final product is to ensure selection of the correct parts and finishes; below is some key information you may require to assist selection:

## Product Finishes

Mild Steel post production **Hot Dip Galvanised** surface treatment to AS/NZS1365, AS1594 and AS/NZS4680

316 Grade **Stainless Steel**

Mild Steel post production **Zinc Plated** surface treatment to AS1789

Mild Steel **Mill Finish** NO surface treatment

Painted finish available on request.

## Load Ratings

Allowable loading for the K-Strut product range is listed in tables located on the relating product page. All published slip out, pull out and load ratings have been derived by calculation based on ultimate load capacity prior to product failure taking into account a safety factor of 1.5.

K-Strut channel is typically used in either a support beam or support column arrangement.

**Support Beam** technical data lists maximum allowable uniform load and mid span deflection at a range of spans. Together with this data we have designated a loading to span which will give a deflection ratio of 1/200 of the span. This will give a recognized practical beam deflection to minimize sagging of the beam under load.

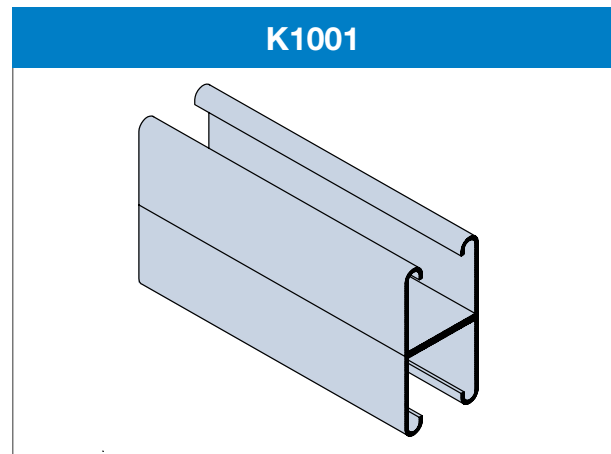
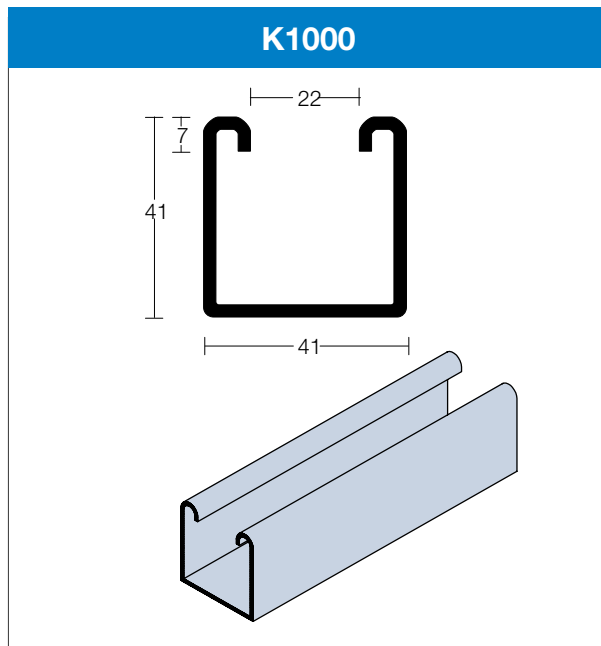
**Support Column** technical data lists maximum lateral loading at a range on unbraced heights.

## Product Weights

All itemised product weights are located under the alpha numeric listing at the back section of this catalogue.

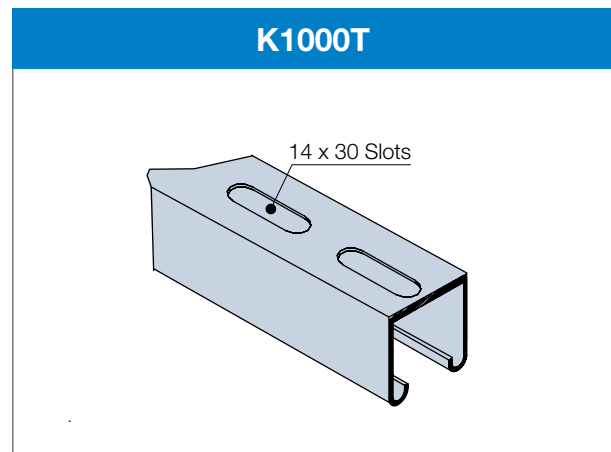
## K1000 Series Channel

- 6 m length
- K1000 series channel is manufactured from 2.5 mm Steel or 2.0 mm 316 Grade Stainless Steel
- Slotted option available
- Special cut to length sizes available on request
- Welded combination channel available on request
- Painted finish available on request



AVAILABLE FINISH	
SUFFIX	DESCRIPTION
<b>H</b>	Hot Dip Galvanised
<b>G</b>	Galvabond
<b>S</b>	316 Stainless Steel
<b>Z</b>	Zinc Passivated
<b>M</b>	Mild Steel Mill Finish
<b>P</b>	Painted

**When Ordering** add suffix to end of product code

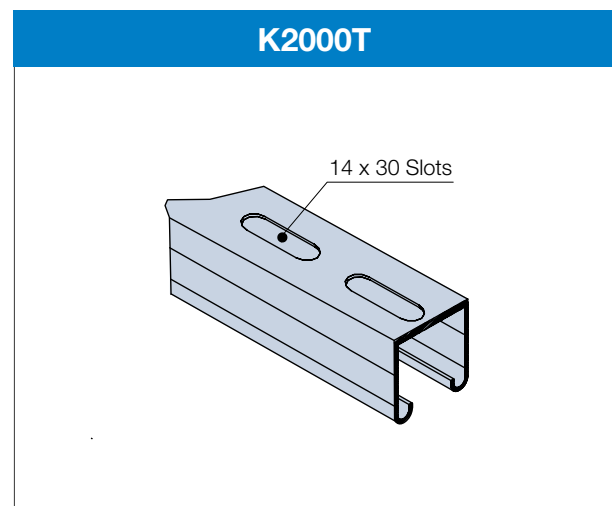
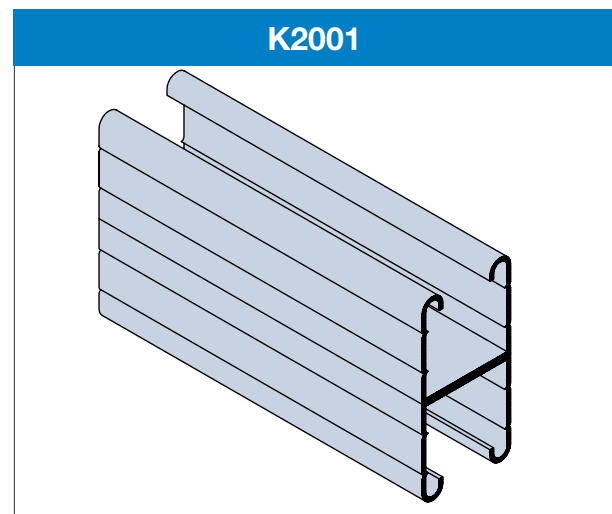
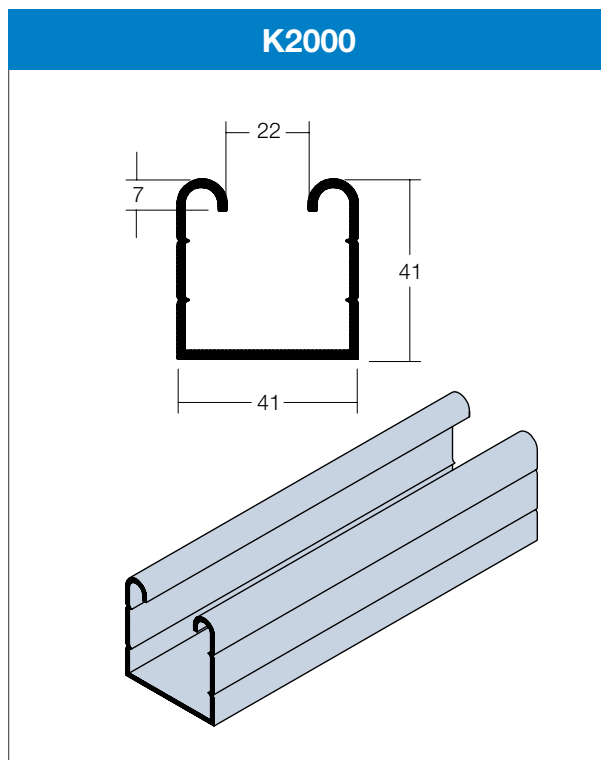


TECHNICAL DETAILS K1000			MASS 2.6 kg/m											
DATA	SPAN (mm)		600	750	1000	1500	2000	2500	3000	3500	4000	4500	5000	6000
BEAM LOADING	Max Allowed Uniform Load kN	K1000	7.5	6.0	4.5	3.0	2.2	1.8	1.5	1.3	1.1	1.0	0.9	0.7
		K1001	13.3	13.3	12.7	8.5	6.4	5.1	4.2	3.6	3.2	2.8	2.5	2.1
	Deflection at Uniform Load mm	K1000	1.0	2.0	4.0	9.0	15.0	24.0	34.0	47.0	60.0	78.0	96.0	
		K1001	0	1.0	2.0	5.0	9.0	13.0	19.0	26.0	35.0	43.0	53.0	77.0
	Uniform Load at Span/200 Deflection kN	K1000	7.5	6.0	4.5	2.6	1.5	0.9	0.7	0.5	0.4	0.3	0.2	0.2
		K1001	13.3	13.3	12.7	8.5	6.4	4.7	3.3	2.4	1.8	1.5	1.2	0.8
The allowable loads shown are derived from dividing the ultimate calculated load values by a 1.5 Factor of Safety														
DATA	UNBRACED HEIGHT (mm)		600	750	1000	1250	1500	1750	2000	2500	2750			
COLUMN LOADING	Max Allowed Lateral Load kN	K1000	15.5	14.6	13.1	11.5	10.2	9.2	8.4	7.0	6.5			
		K1001	28.9	28.5	27.8	27.0	25.9	24.7	23.4	20.0	18.2			

E.&O.E.

## K2000 Series Channel

- 6 m length
- K2000 series channel is manufactured from 1.6 mm Steel
- Slotted option available
- Special cut to length sizes available on request
- Welded combination channel available on request
- Painted finish available on request



AVAILABLE FINISH	
SUFFIX	DESCRIPTION
H	Hot Dip Galvanised
G	Galvabond
S	316 Stainless Steel
Z	Zinc Passivated
M	Mild Steel Mill Finish
P	Painted

**When Ordering** add suffix to end of product code

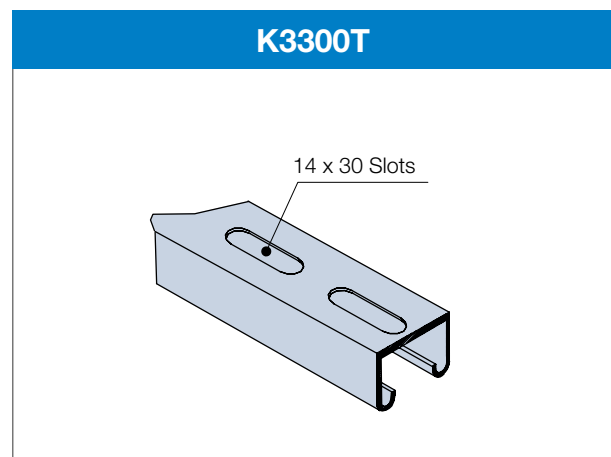
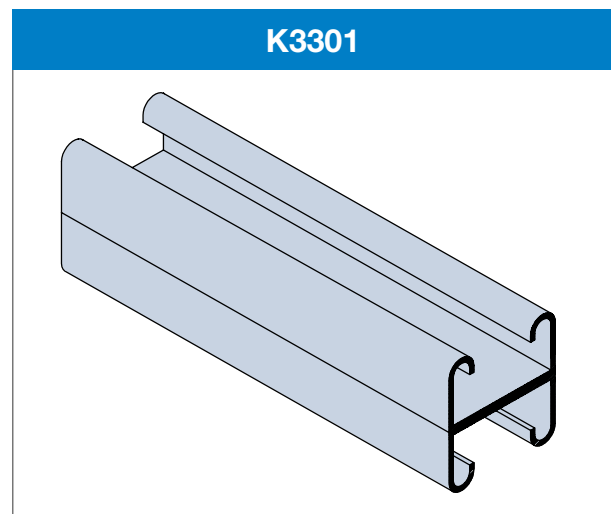
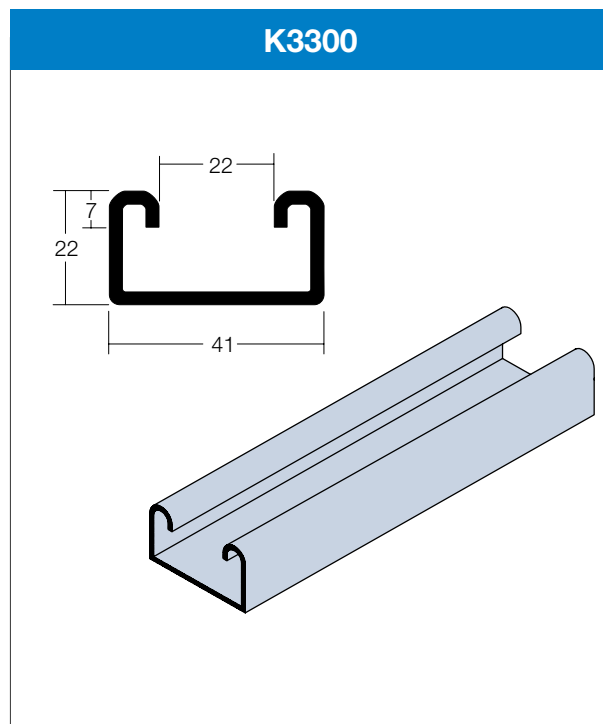
The allowable loads shown are derived from dividing the ultimate calculated load values by a 1.5 Factor of Safety

TECHNICAL DETAILS K2000			MASS 1.8 kg/m											
DATA	SPAN (mm)		600	750	1000	1500	2000	2500	3000	3500	4000	4500	5000	6000
BEAM LOADING	Max Allowed Uniform Load kN	K2000	4.5	3.6	2.7	1.8	1.3	1.1	0.9	0.8	0.7	0.6	0.5	0.4
		K2001	8.0	8.0	7.6	5.1	3.8	3.1	2.5	2.2	1.9	1.7	1.5	1.3
	Deflection at Uniform Load mm	K2000	1.0	2.0	4.0	9.0	15.0	24.0	34.0	47.0	60.0	78.0	96.0	129.0
		K2001	0	1.0	2.0	5.0	9.0	13.0	19.0	26.0	35.0	43.0	53.0	77.0
	Uniform Load at Span/200 deflection kN	K2000	4.5	3.6	2.7	1.6	0.9	0.5	0.4	0.3	0.2	0.2	.1	.1
		K2001	8.0	8.0	7.6	5.1	3.8	2.8	2.0	1.4	1.1	0.9	0.7	0.5

E.&O.E.

## K3300 Series Channel

- 6 m length
- K3300 series channel is manufactured from 2.5 mm Steel or 2.0 mm 316 Grade Stainless Steel
- Slotted option available
- Special cut to length sizes available on request
- Welded combination channel available on request
- Painted finish available on request



AVAILABLE FINISH	
SUFFIX	DESCRIPTION
<b>H</b>	Hot Dip Galvanised
<b>G</b>	Galvabond
<b>S</b>	316 Stainless Steel
<b>Z</b>	Zinc Passivated
<b>M</b>	Mild Steel Mill Finish
<b>P</b>	Painted

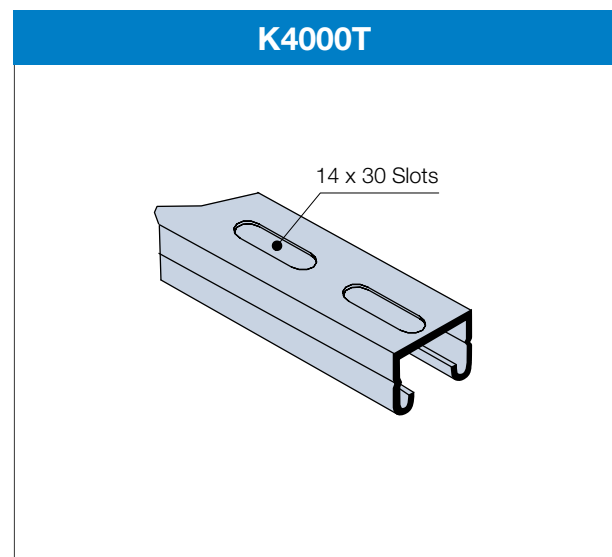
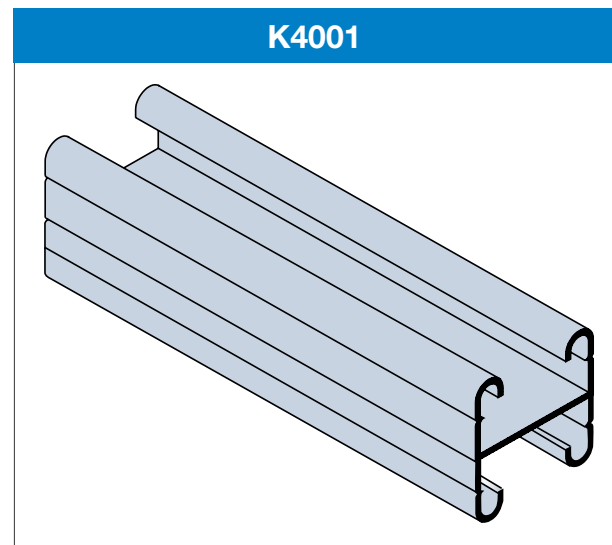
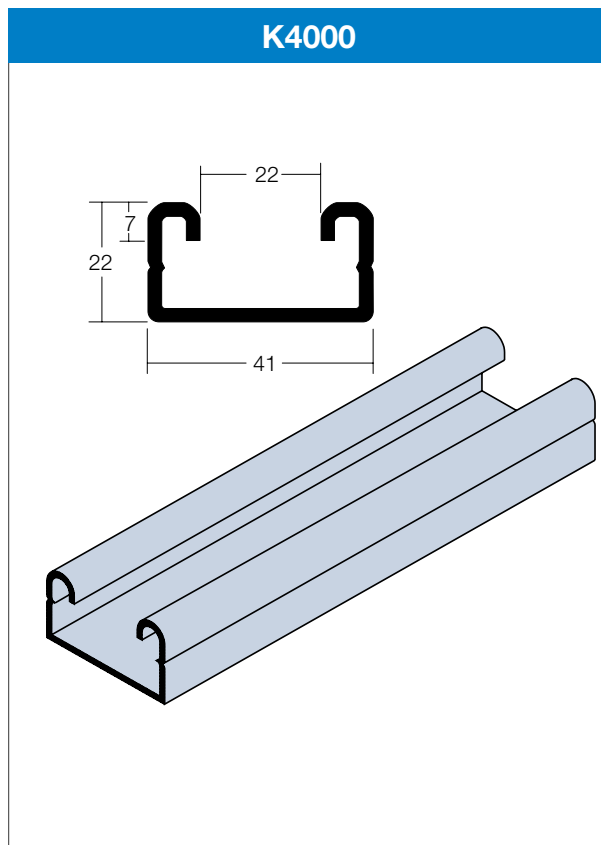
**When Ordering** add suffix to end of product code

TECHNICAL DETAILS K33000			MASS 1.9 kg/m											
DATA	SPAN (mm)		600	750	1000	1500	2000	2500	3000	3500	4000	4500	5000	6000
BEAM LOADING	Max Allowed Uniform Load kN	K3300	2.7	2.2	1.6	1.1	0.8	0.6	0.5	0.5	0.4	0.4	0.3	0.3
		K3301	7.5	6.0	4.5	3.0	2.3	1.8	1.5	1.3	1.1	1.0	0.9	0.8
	Deflection at Uniform Load mm	K3300	2.0	4.0	7.0	16.0	27.0	39.0	57.0	90.0	107.0	153.0	157.0	272.0
		K3301	1.0	2.0	4.0	9.0	16.0	25.0	36.0	49.0	62.0	81.0	100.0	153.0
	Uniform Load at Span/200 deflection kN	K3300	2.7	2.1	1.2	0.5	0.3	0.2	0.1	0.1	0.1	0.1	-	-
		K3301	7.5	6.0	4.5	2.0	1.4	0.9	0.6	0.5	0.4	0.3	0.2	-
The allowable loads shown are derived from dividing the ultimate calculated load values by a 1.5 Factor of Safety														
DATA	UNBRACED HEIGHT (mm)		600	750	1000	1250	1500	1750	2000	2500	2750			
COLUMN LOADING	Max Allowed Lateral Load kN	K3300	9.6	8.9	7.7	6.2	5.0	4.1	-	-	-			
		K3301	18.7	18.1	16.9	15.6	14.1	12.5	10.9	8.5	7.5			

E.&O.E.

## K4000 Series Channel

- 6 m length
- K4000 series channel is manufactured from 1.6 mm Steel
- Slotted option available
- Special cut to length sizes available on request
- Welded combination channel available on request
- Painted finish available on request



AVAILABLE FINISH	
SUFFIX	DESCRIPTION
<b>H</b>	Hot Dip Galvanised
<b>G</b>	Galvabond
<b>S</b>	316 Stainless Steel
<b>Z</b>	Zinc Passivated
<b>M</b>	Mild Steel Mill Finish
<b>P</b>	Painted

**When Ordering** add suffix to end of product code

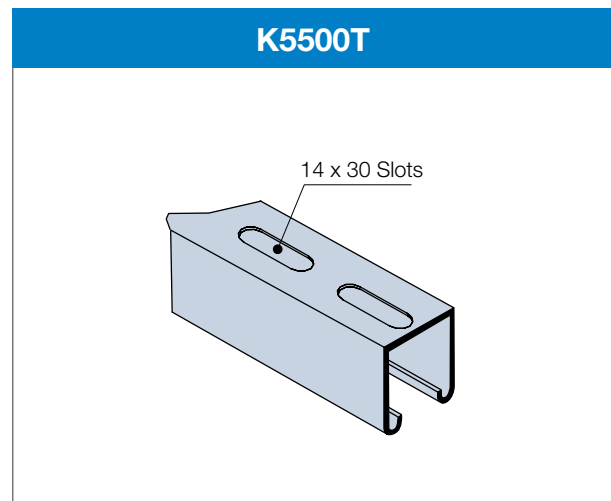
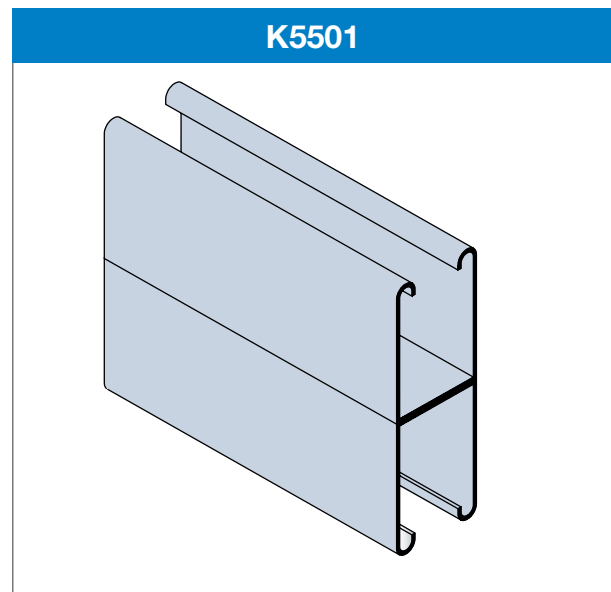
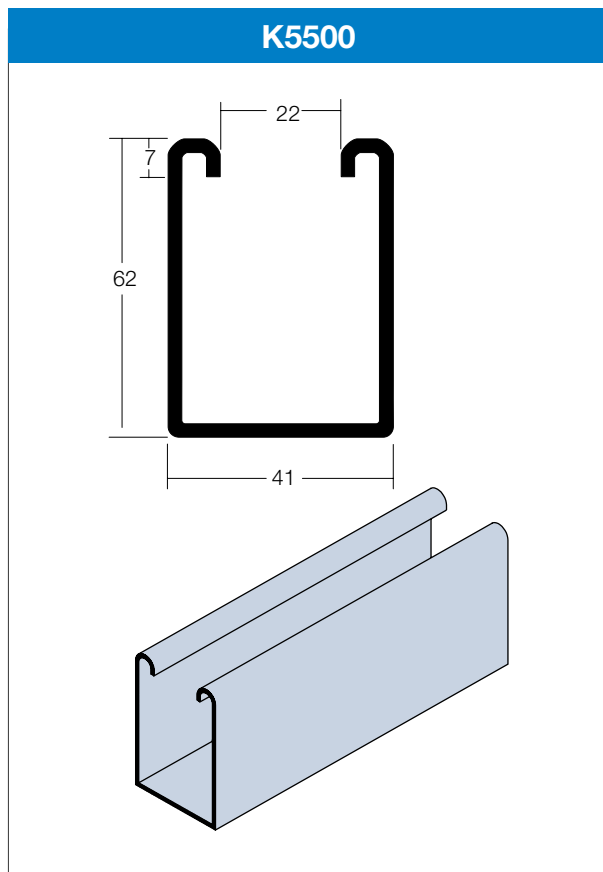
The allowable loads shown are derived from dividing the ultimate calculated load values by a 1.5 Factor of Safety.

TECHNICAL DETAILS K4000			MASS 1.3 kg/m											
DATA	SPAN (mm)		600	750	1000	1500	2000	2500	3000	3500	4000	4500	5000	6000
<b>BEAM LOADING</b>	Max Allowed Uniform Load kN	K4000	1.6	1.3	1.0	0.7	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2
		K4001	4.5	3.6	2.7	1.8	1.4	1.1	0.9	0.8	0.7	0.6	0.5	0.5
	Deflection at Uniform Load mm	K4000	2.0	4.0	7.0	16.0	27.0	39.0	57.0	90.0	107.0	153.0	157.0	272.0
		K4001	1.0	2.0	4.0	9.0	16.0	25.0	36.0	49.0	62.0	81.0	100.0	153.0
	Uniform Load at Span/200 deflection kN	K4000	1.6	1.3	0.7	0.3	0.2	0.1	0.1	-	-	-	-	-
		K4001	4.5	3.6	2.7	1.2	0.8	0.5	0.4	0.3	0.2	0.2	0.1	-

E.&O.E.

## K5500 Series Channel

- 6 m length
- K5500 series channel is manufactured from 2.5 mm Steel or 2.0 mm 316 Grade Stainless Steel
- Slotted option available
- Special cut to length sizes available on request
- Welded combination channel available on request
- Painted finish available on request



AVAILABLE FINISH	
SUFFIX	DESCRIPTION
<b>H</b>	Hot Dip Galvanised
<b>G</b>	Galvabond
<b>Z</b>	Zinc Passivated
<b>M</b>	Mild Steel Mill Finish
<b>P</b>	Painted

**When Ordering** add suffix to end of product code

The allowable loads shown are derived from dividing the ultimate calculated load values by a 1.5 Factor of Safety.

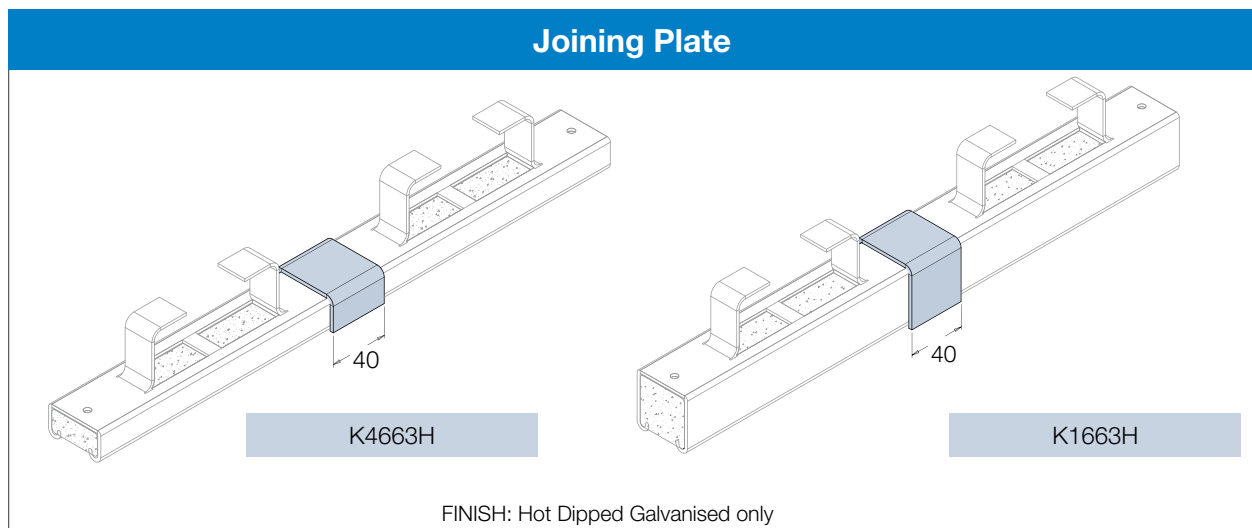
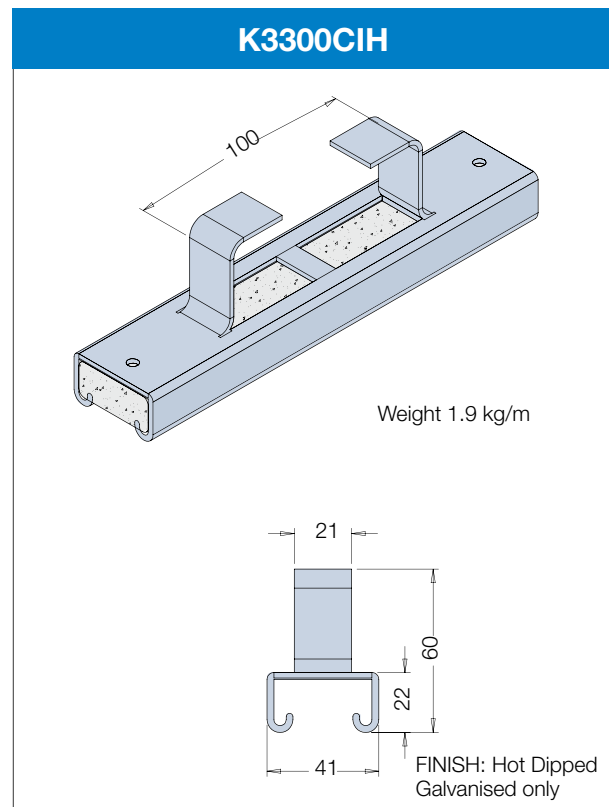
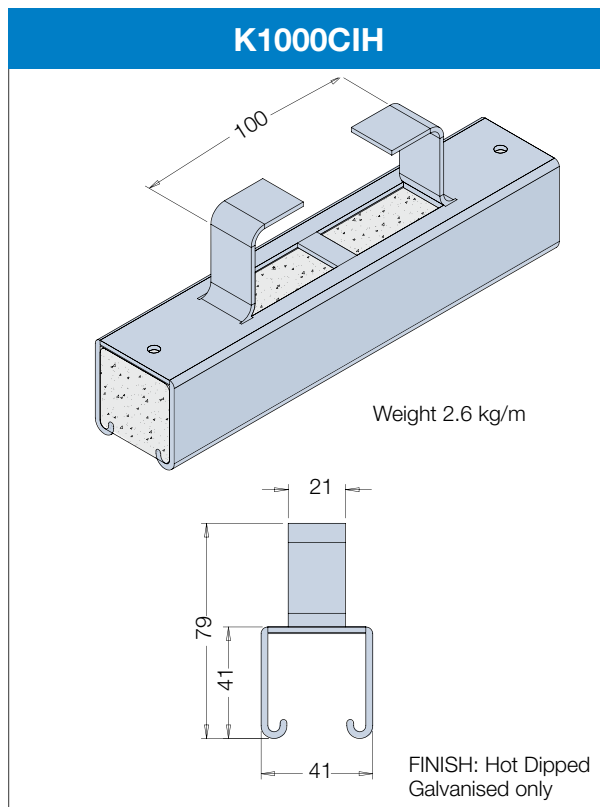
TECHNICAL DETAILS K5500			MASS 1.3 kg/m											
DATA	SPAN (mm)		600	750	1000	1500	2000	2500	3000	3500	4000	4500	5000	6000
<b>BEAM LOADING</b>	Max Allowed Uniform Load kN	K5500	14.3	11.4	8.6	5.7	4.3	3.4	2.9	2.4	2.1	1.9	1.7	1.4
		K5501	19.5	19.5	17.3	11.5	8.6	6.9	5.8	4.9	4.3	3.8	3.5	2.9
	Deflection at Uniform Load mm	K5500	1.0	1.0	3.0	6.0	11.0	16.0	24.0	32.0	41.0	53.0	65.0	93.0
		K5501	0	0	1.0	2.0	4.0	6.0	9.0	12.0	16.0	20.0	25.0	36.0
	Uniform Load at Span/200 deflection kN	K5500	14.3	11.4	8.6	5.7	4.1	2.6	1.8	1.3	1.0	0.8	0.7	0.5
		K5501	19.5	19.5	17.3	11.5	8.6	6.9	5.8	4.9	4.3	3.8	3.5	2.4

E.&O.E.



## Concrete Insert Channel

- 6 m length
- CI series channel is manufactured from 2.5 mm Mild Steel with post production Hot Dip Galvanised Surface Treatment
- Pressed lugs at 200 mm continuous centres
- Removable foam insert
- Testing is based on a minimum 300 mm section cast in 25 Mpa (average) concrete. Maximum load before pull out failure is 9.3 kN based on a safety factor of 3
- Special cut to length sizes available on request



E.&O.E.

## Channel Loading Factors

Technical details by K-Strut series are based on a uniform load taking into account a safety factory of 1.5. Below conversion factors for beams are designed to help ascertain the correct series for the desired application.

As an example;


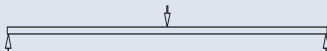
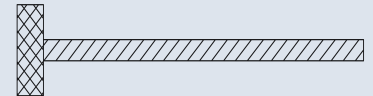

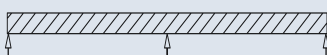
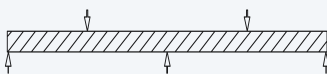
K-Strut Series K1000 Channel in a uniform load over a 600 mm span has a max allowable load of 7.5 kN resulting in a 1 mm deflection at full load.

### **Scenario K1000G over 600 mm span with central concentrated load**

Uniform load **7.5 kN x 0.50** central concentrated load factor = **3.75 kN**

Uniform deflection at full load **1 mm x 0.80** central concentrated deflection factor = **0.8 mm**

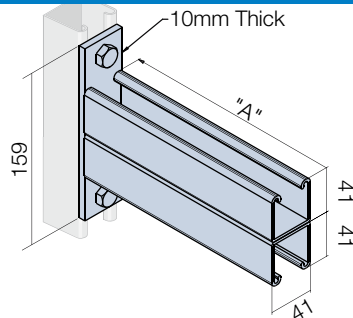
### **Conversion Factors for Beams with Various Static Loading Conditions**

LOAD AND SUPPORT CONDITION		LOAD FACTOR	DEFLECTION FACTOR
1. Simple Beam, Uniform Load		1.00	1.00
2. Simple Beam, Concentrated Load at Centre		0.50	0.80
3. Simple Beam, Two Equal Concentrated Loads at 1/4 pts		1.00	1.10
4. Beam Fixed at Both Ends, Uniform Load		1.50	0.30
5. Beam Fixed at Both Ends, Concentrated Load at Centre		1.00	0.40
6. Cantilever Beam, Uniform Load		0.25	2.40
7. Cantilever Beam, Concentrated Load at End		0.12	3.20
8. Continuous Beam, Two Equal Spans, Uniform Load on Both Ends		1.00	0.42
9. Continuous Beam, Two Equal Spans, Concentrated Load at Centre of Each Span		0.67	0.48

E.&O.E.

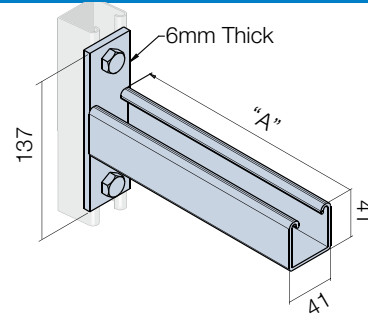
## Cantilever Brackets

### Flat Plate Double Strut Bracket



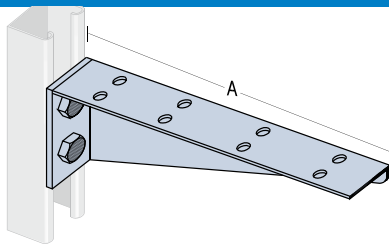
CODE	A	UNIFORM DESIGN LOAD kN
K2542	350	3.7
K2543	497	1.9
K2544	663	1.5
K2545	762	1.1
K2546	914	1.0

### Flat Plate Bracket



CODE	A	UNIFORM DESIGN LOAD kN
K2513F	204	3.7
K2514F	350	1.9
K2515F	497	1.5
K2516F	663	1.1
K2517F	780	1.0

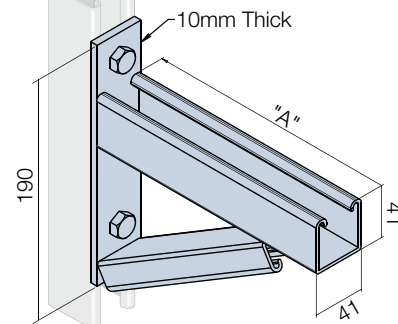
### Tray Arm Bracket



CODE	A	UNIFORM DESIGN LOAD kN
K2491	152	1.55
K2492	203	1.5
K2493	254	1.4
K2494	305	1.35
K2495	356	1.25
K2497	457	1.0
K2500	610	0.95

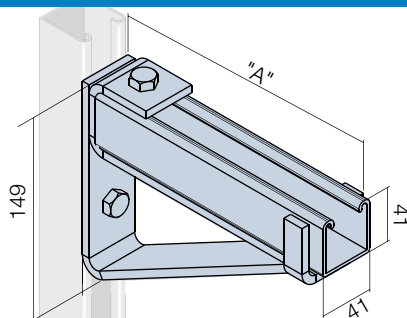
Also available in Galvabond when ordering add suffix G

### Braced Cantilever Bracket



CODE	A	UNIFORM DESIGN LOAD kN
K2514B	350	4.35
K2515B	497	3.05
K2516B	663	3.20
K2517B	780	2.75

### K1000 Channel Support Bracket



CODE	A	UNIFORM DESIGN LOAD kN
K1075	121	0.57
K1075A	197	0.57

Note: To be used to support K1000, K2000 and K4001. Loading applies to bracket only and not strut strength.

Mounting plates have 14 mm diameter holes.

#### AVAILABLE FINISH

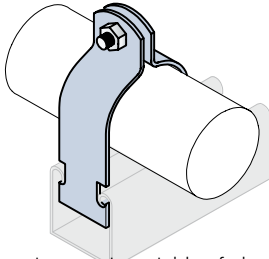
SUFFIX	DESCRIPTION
H	Hot Dip Galvanised
S	316 Stainless Steel

When Ordering add suffix to end of product code

E.&O.E.

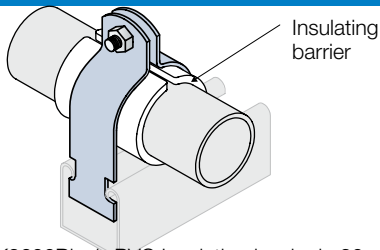
## Pipe, Cable & Conduit Clamps

### Pipe, Cable & Conduit Clamps



NOTE: Diameters are to outside of pipe, cable or insulation. Clamps are supplied with Pan Head screws and nuts.

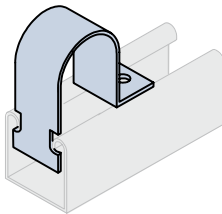
#### Insulation Barrier



K2600Black-PVC Insulating barrier in 20 m rolls  
 K2600White-'Supacushion' barrier in 5 m Rolls

CODE	FIT DIA.	CODE	FIT DIA.	CODE	FIT DIA.
K5-8	8 mm	K5-51	51	K5-117	117 mm
K5-10	10 mm	K5-54	54	K5-121	121 mm
K5-12	12 mm	K5-57	57	K5-127	127 mm
K5-16	16 mm	K5-60	60	K5-133	133 mm
K5-18	18 mm	K5-64	64	K5-139	139 mm
K5-20	20 mm	K5-67	67	K5-146	146 mm
K5-21	21 mm	K5-70	70	K5-152	152 mm
K5-22	22 mm	K5-76	76	K5-159	159 mm
K5-25	25 mm	K5-79	79	K5-165	165 mm
K5-27	27 mm	K5-83	83	K5-178	178 mm
K5-29	29 mm	K5-86	86	K5-191	191 mm
K5-32	32 mm	K5-89	89	K5-203	203 mm
K5-34	34 mm	K5-92	92	K5-219	219 mm
K5-35	35 mm	K5-95	95	K5-230	230 mm
K5-38	38 mm	K5-98	98	K5-241	241 mm
K5-42	42 mm	K5-102	102	K5-254	254 mm
K5-43	43 mm	K5-105	105	K5-305	305 mm
K5-44	44 mm	K5-108	108	K5-315	315 mm
K5-48	48 mm	K5-111	111	K5-324	324 mm
K5-49	49 mm	K5-114	114		

### Single Bolt Strut Clamp



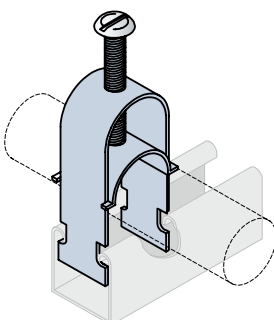
Setscrew and Strut nut ordered separately

CODE	FIT DIA.
K1600-34	34 mm
K1600-43	43 mm
K1600-48	48 mm
K1600-60	60 mm
K1600-76	76 mm
K1600-89	89 mm
K1600-102	102 mm
K1600-114	114 mm
K1600-152	152 mm
K1600-165	165 mm

AVAILABLE FINISH	
SUFFIX	DESCRIPTION
<b>H</b>	Hot Dip Galvanised
<b>Z</b>	Zinc Passivated
<b>S</b>	316 Stainless Steel

**When Ordering** add suffix to end of product code

### Adjustable Saddle Clamp



CODE	FIT DIA.
K5026-1	13 mm
K5028-1	19 mm
K5030-1	25 mm
K5032-1	32 mm
K5034-1	38 mm
K5036-1	44 mm
K5038-1	51 mm
K5040-1	57 mm
K5042-1	64 mm
K5044-1	70 mm
K5046-1	76 mm

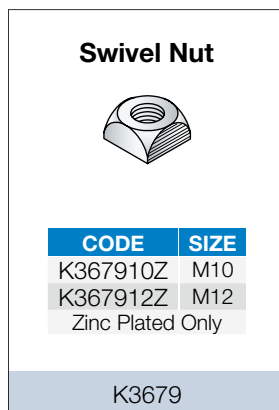
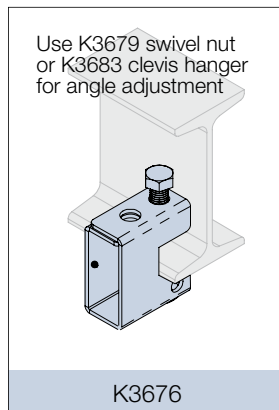
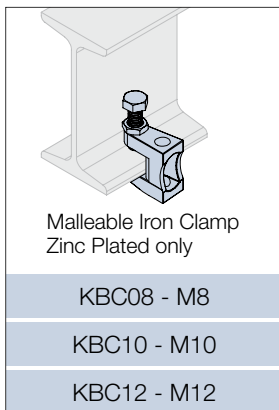
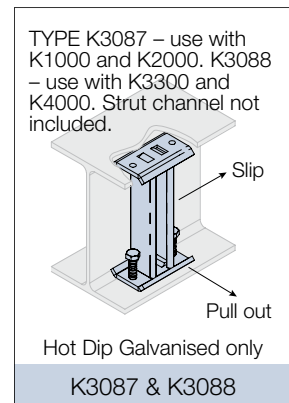
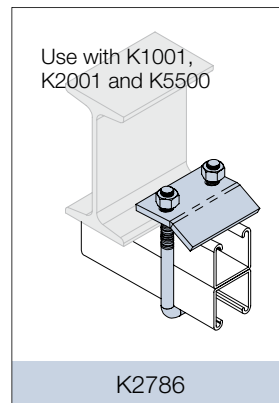
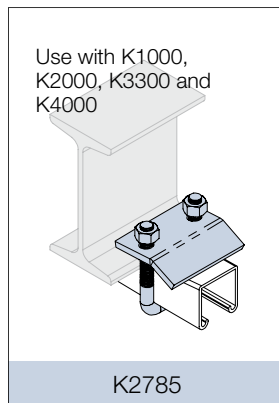
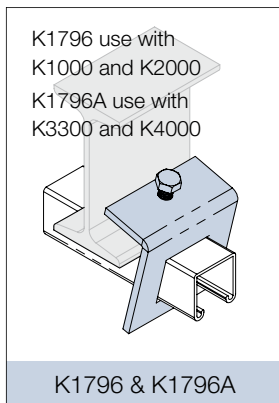
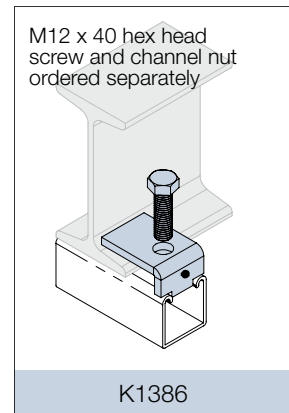
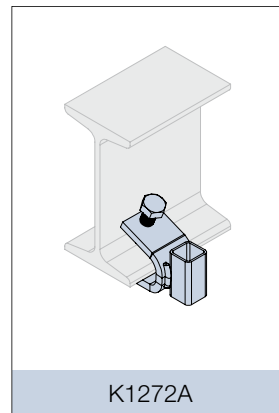
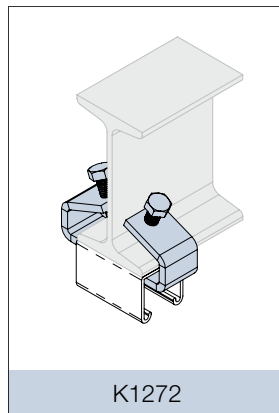
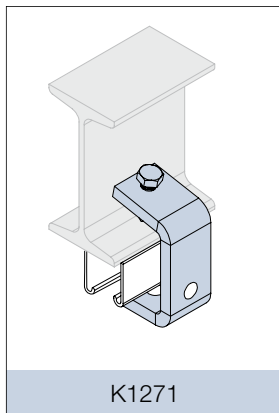
AVAILABLE FINISH	
SUFFIX	DESCRIPTION
<b>H</b>	Hot Dip Galvanised
<b>Z</b>	Zinc Passivated

**When Ordering** add suffix to end of product code

E.&O.E.

# K-Strut Fittings

## Column Support Applications



BEAM CLAMP SAFE LOADING		
CODE	SAFE LOAD kN	NOTES
K1271	4.4	Per pair
K1272	4.0	Per pair
K1272A	0.4	each
K1273	1.0	M10 only
K1386	5.4 K1000/3.9 K2000	Per pair
K1796	4.2	Per pair
K1796A	4.2	Per pair
K2785	8.8	Per pair
K2786	8.8	Per pair
K3676	2.9	M10
K3683	1.1	Use with K3676
KBC08	1.8	Mal / Iron
KBC10	2.2	Mal / Iron
KBC12	3.1	Mal / Iron

CODE	USED WITH	PULL OUT	SLIP
K3087	With K1000	450 kg	360 kg
K3087	With K2000	215 kg	135 kg
K3088	With K3300	450 kg	360 kg

End plates include Cone point screws only. Strut Channel is not included.

AVAILABLE FINISH	
SUFFIX	DESCRIPTION
H	Hot Dip Galvanised
S	316 Stainless Steel

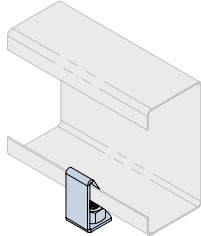
**When Ordering** add suffix to end of product code

NOTES: Material thickness 6mm hole diameter 14 mm  
Channel nuts and bolts order separately

E.&O.E.

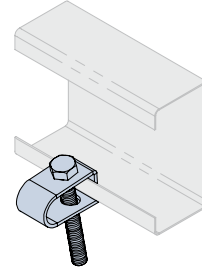
# K-Strut Fittings

## Hanger Support Applications



FINISH: Zinc Plated only

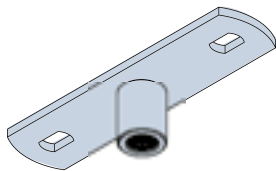
KPC08 – M8, KPC10 – M10 & KPC12 – M12



FINISH: Zinc Plated only

K1273 – M10

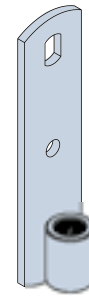
### Central Female Hanger



FINISH: Zinc Plated only

K1200A – M10

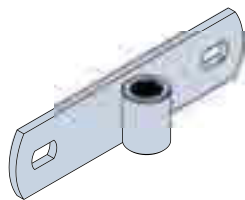
### Verticle Hanger



FINISH: Zinc Plated only

K1200B – M10

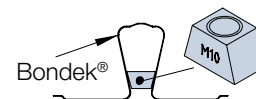
### Horizontal Hanger



FINISH: Zinc Plated only

K1200C – M10

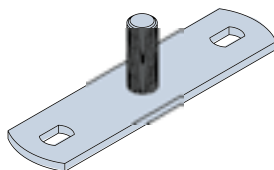
### Wedge Nuts for Bondek®



FINISH: Zinc Plated only

CODE	SIZE
KWN06	M6
KWN08	M8
KWN10	M10
KWN12	M12

### Central Male Hanger



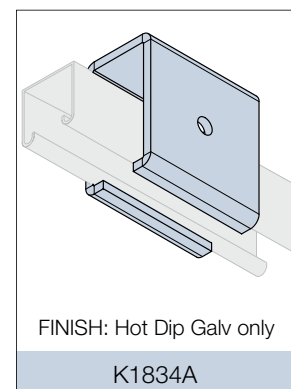
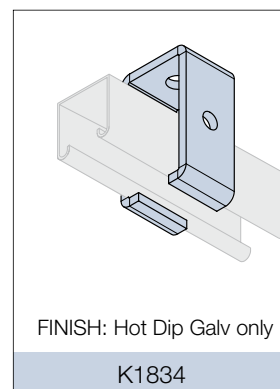
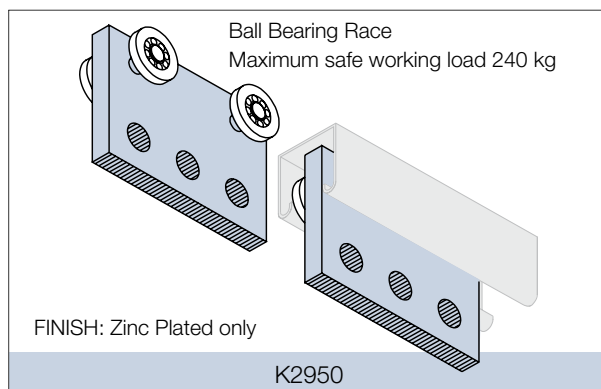
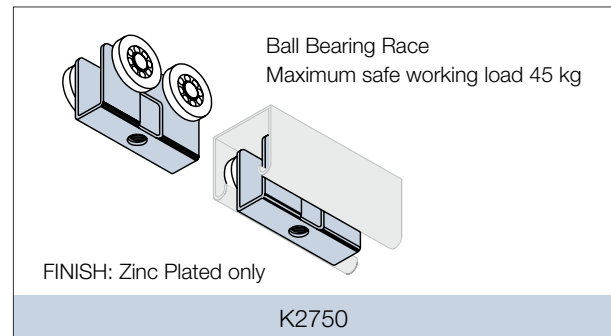
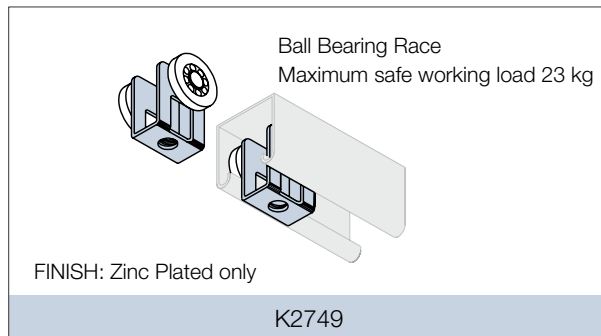
FINISH: Zinc Plated only

K1200D – M10

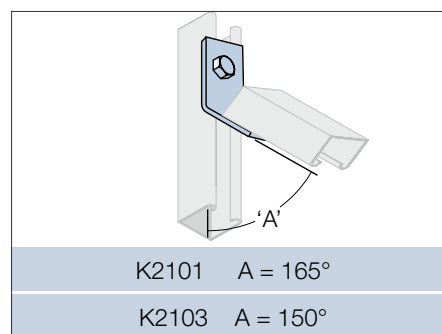
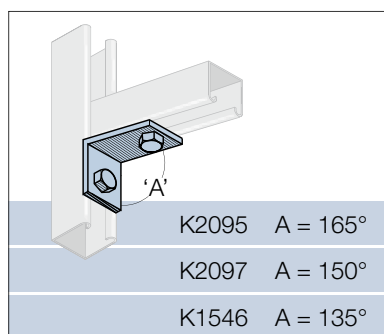
E.&O.E.

## K-Strut Fittings

### Channel Carriages



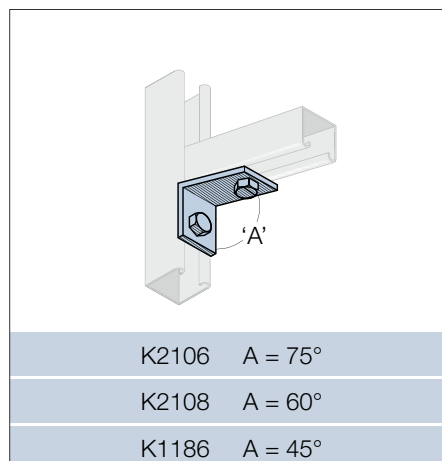
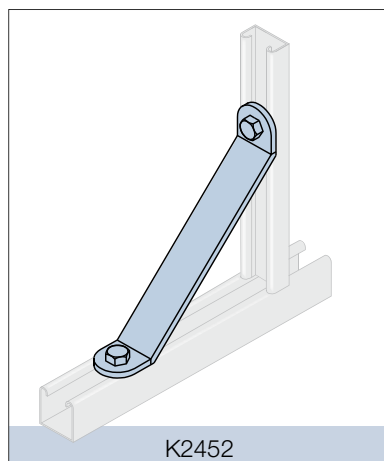
### Angle Fittings



AVAILABLE FINISH	
SUFFIX	DESCRIPTION
H	Hot Dip Galvanised
S	316 Stainless Steel

**When Ordering** add suffix to end of product code

NOTE: Material thickness 6 mm.  
Hole diameter 14 mm. Channel nuts and bolts order separately.

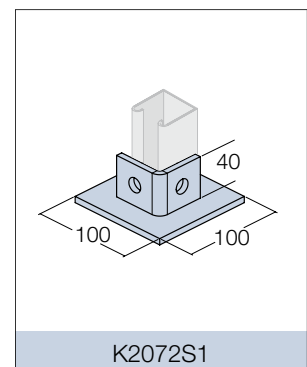
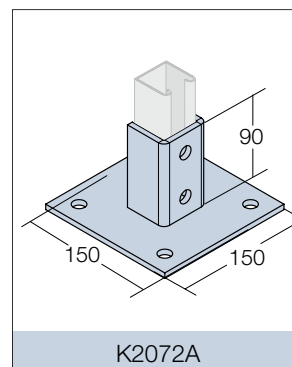
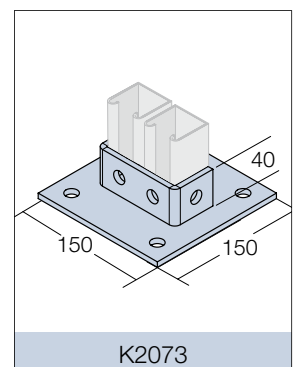
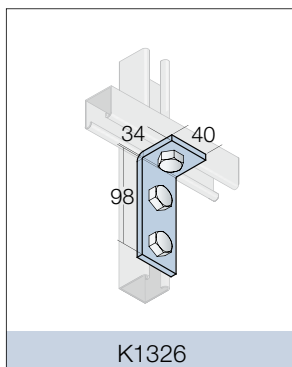
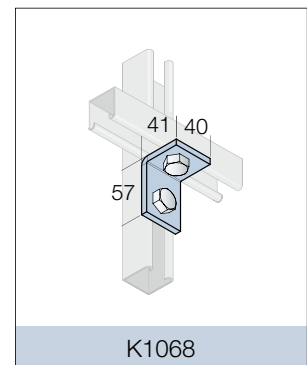
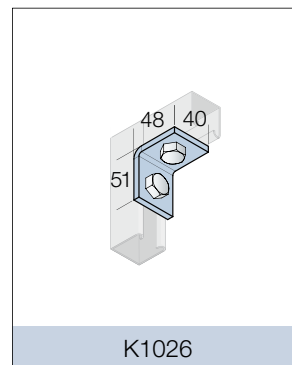
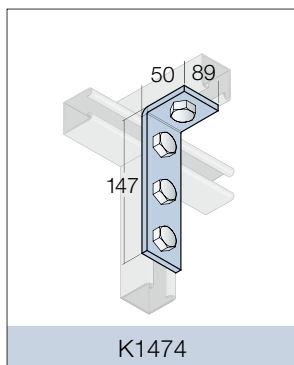
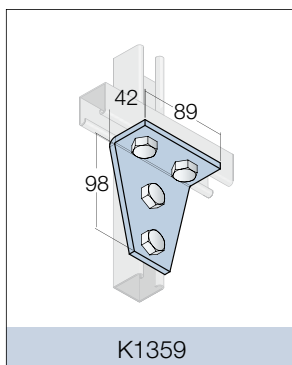
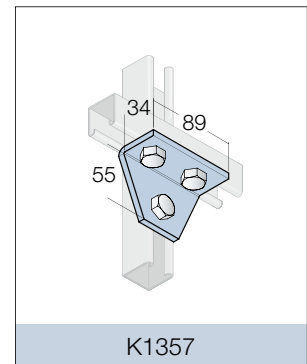
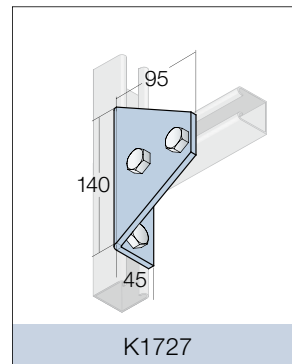
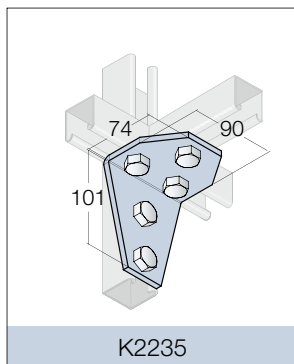
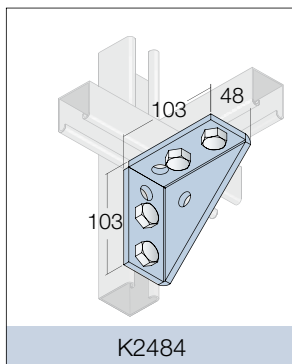
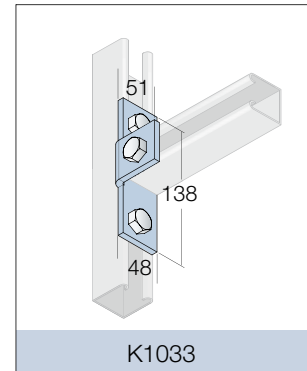
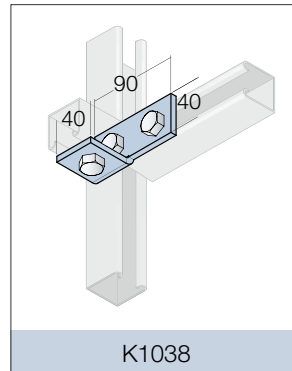
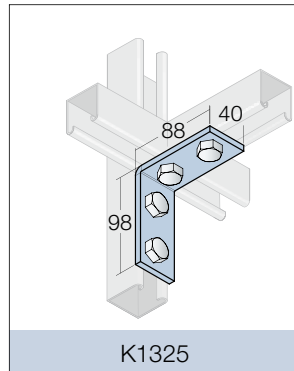
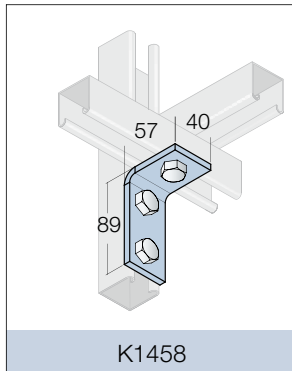


E.&O.E.



# K-Strut Fittings

## 90° Fittings



AVAILABLE FINISH	
SUFFIX	DESCRIPTION
H	Hot Dip Galvanised
S	316 Stainless Steel

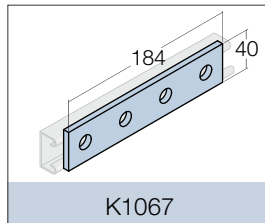
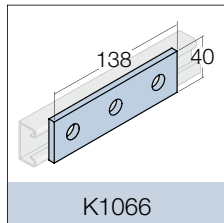
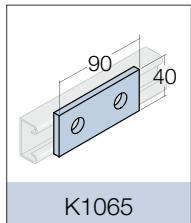
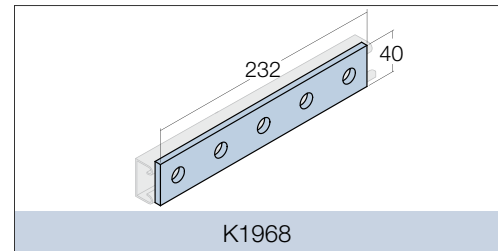
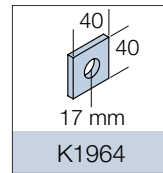
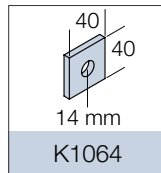
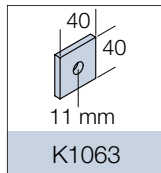
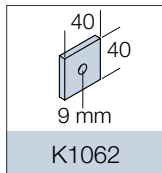
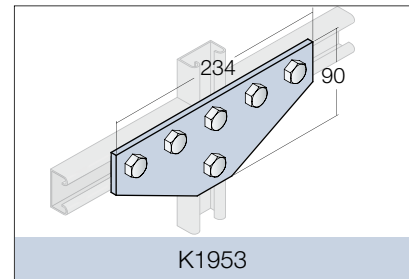
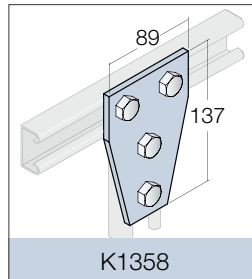
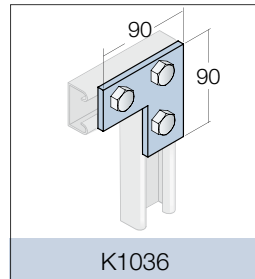
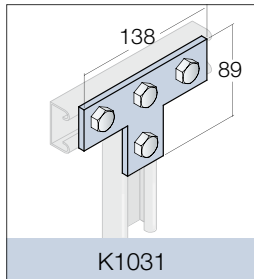
**When Ordering** add suffix to end of product code

NOTES: Material thickness 6 mm hole diameter 14 mm  
 Channel nuts and bolts ordered separately

E.&O.E.

# K-Strut Fittings

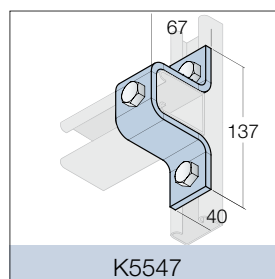
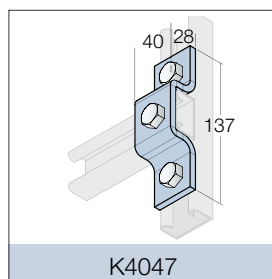
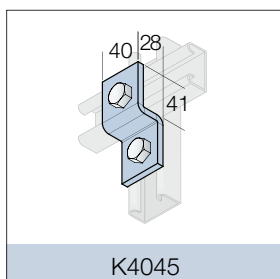
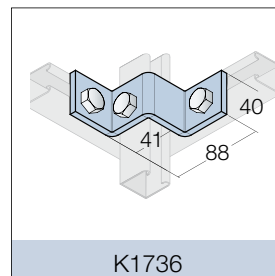
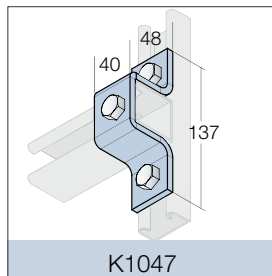
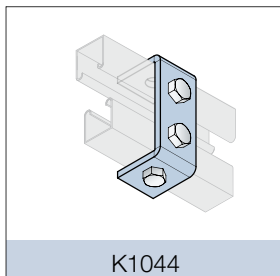
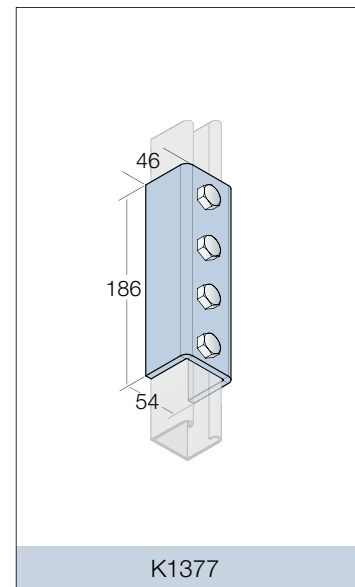
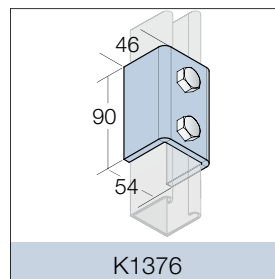
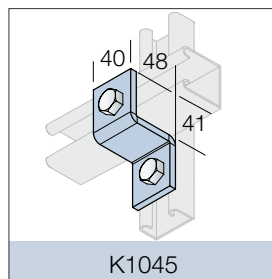
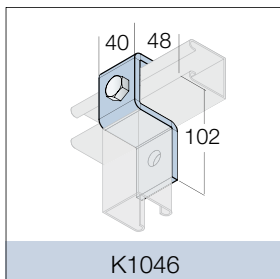
## Flat Fittings



AVAILABLE FINISH	
SUFFIX	DESCRIPTION
H	Hot Dip Galvanised
S	316 Stainless Steel

**When Ordering** add suffix to end of product code

## “U” & “Z” Fittings



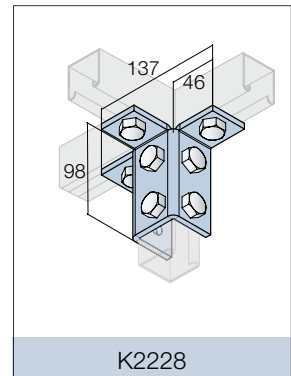
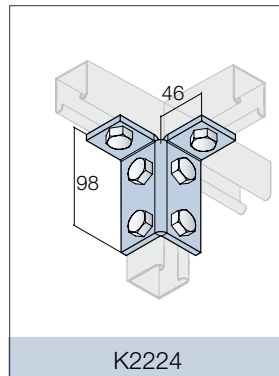
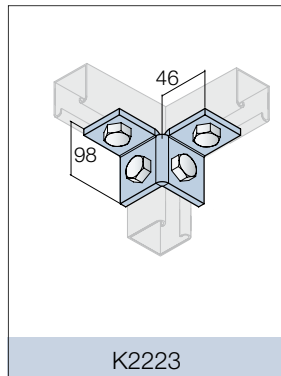
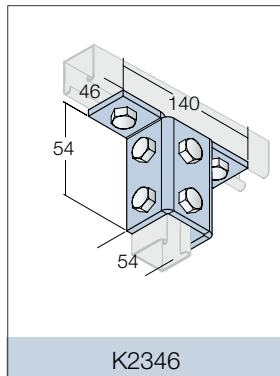
AVAILABLE FINISH	
SUFFIX	DESCRIPTION
H	Hot Dip Galvanised
S	316 Stainless Steel

**When Ordering** add suffix to end of product code

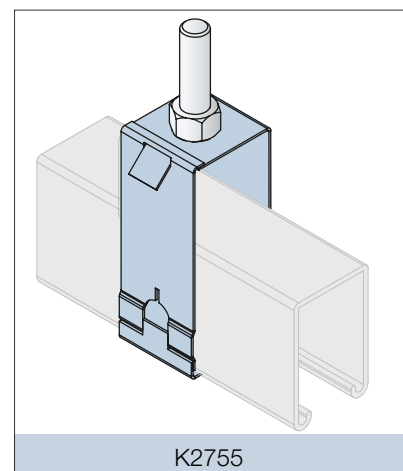
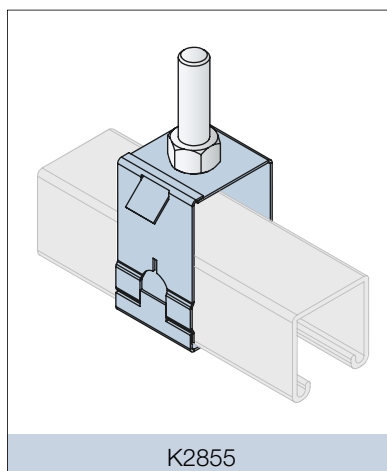
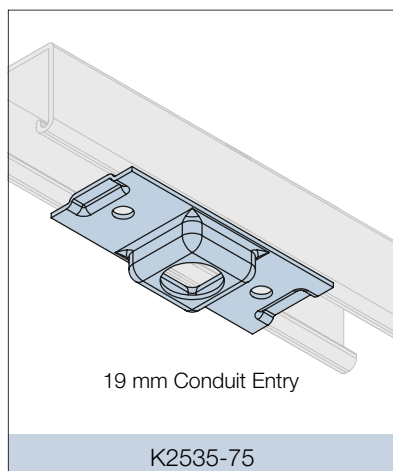
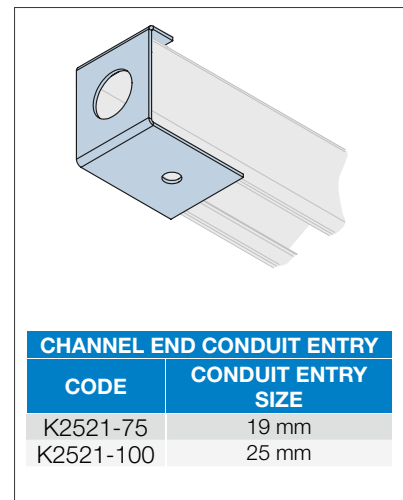
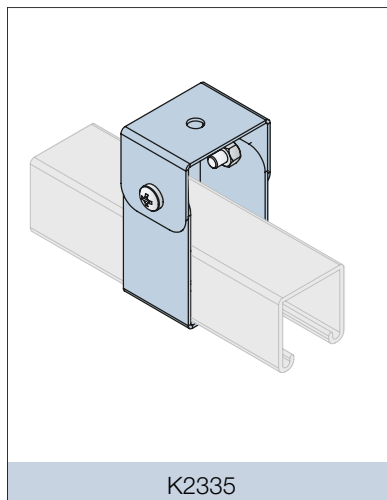
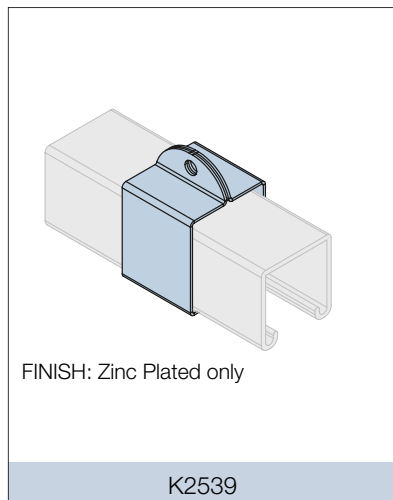
E.&O.E.

## K-Strut Fittings

### Winged Shape Fittings



### Lighting Supports



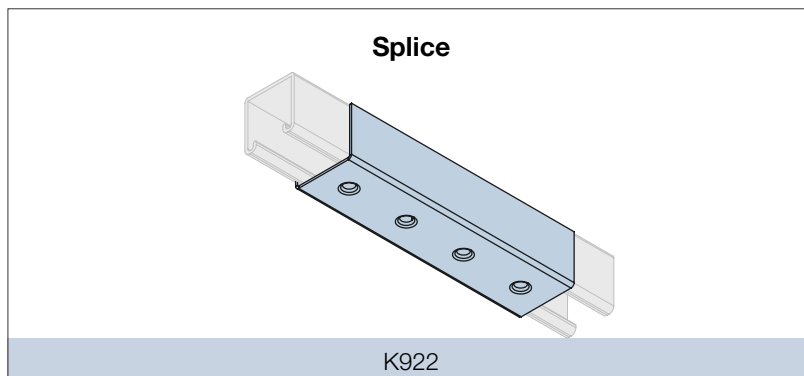
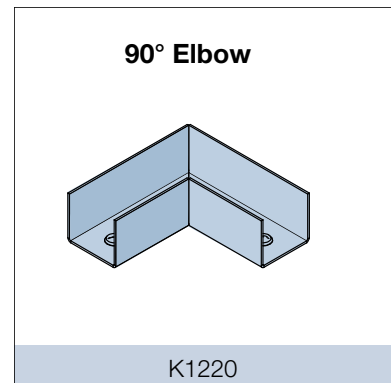
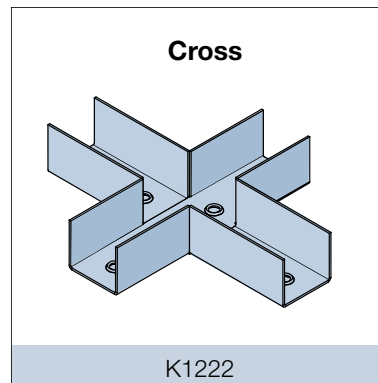
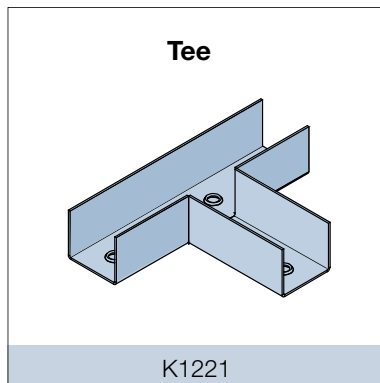
AVAILABLE FINISH	
SUFFIX	DESCRIPTION
<b>H</b>	Hot Dip Galvanised
<b>Z</b>	Zinc Plated

**When Ordering** add suffix to end of product code

E.&O.E.

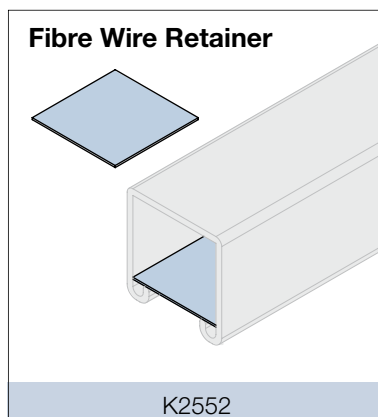
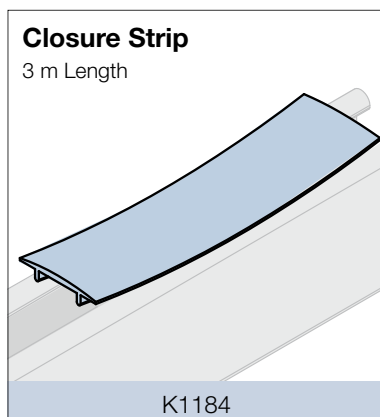
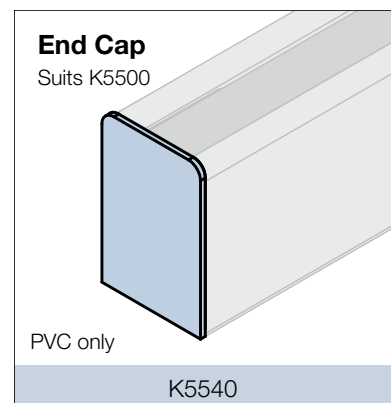
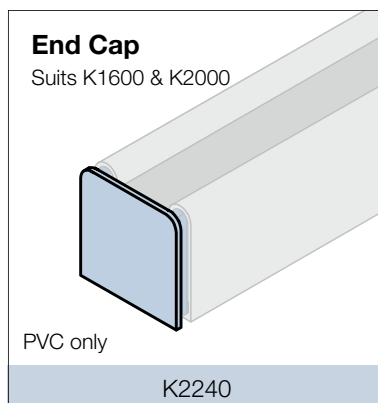
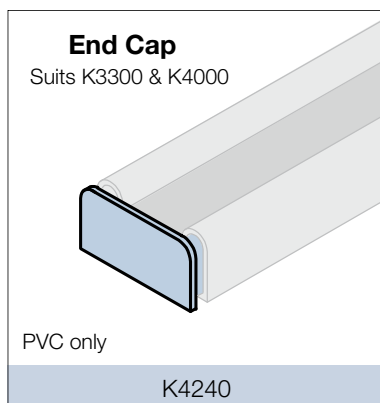
# K-Strut Fittings

## Joiner Boxes/PVC Accessories



AVAILABLE FINISH	
SUFFIX	DESCRIPTION
H	Hot Dip Galvanised
Z	Zinc Plated

**When Ordering** add suffix to end of product code



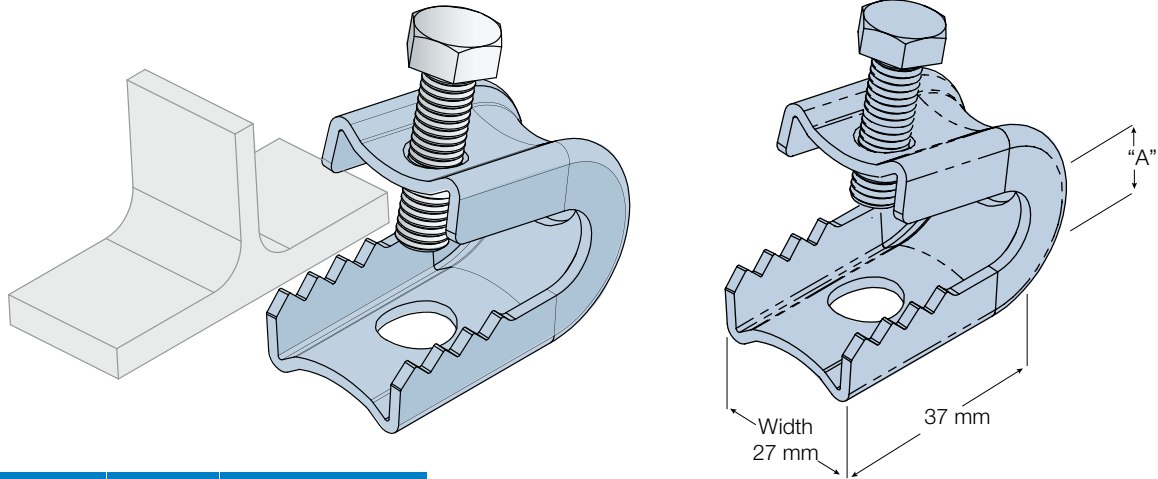
AVAILABLE FINISH	
SUFFIX	DESCRIPTION
PL	PVC Grey
W	PVC White
AL	Aluminium

**When Ordering** add suffix to end of product code

E.&O.E.

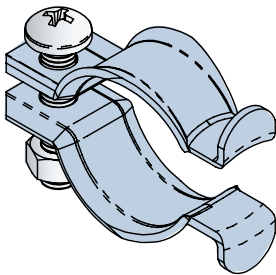
## K-Strut Fittings

### Adaptable Beam Clamps

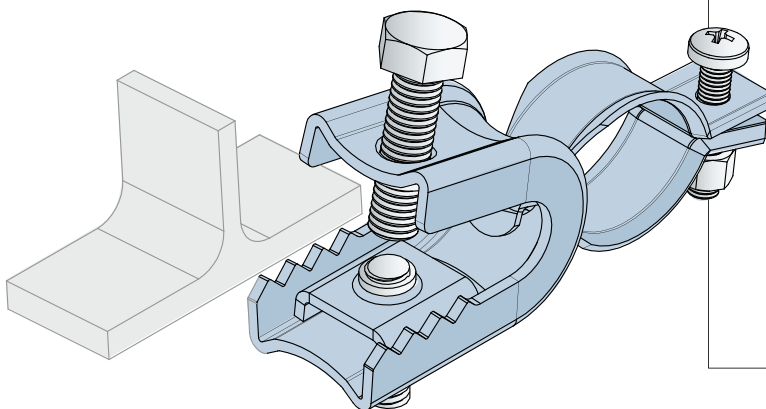


CODE	GRIP "A"	SCREW SIZE
KCC17	17 mm	M8 x 30 Cone Point
KCC36	36 mm	M8 x 50 Cone Point
KCC45	45 mm	M8 x 50 Cone Point

### Cable – Pipe Clamps

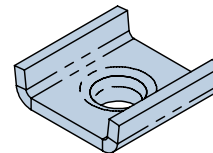


CODE	GRIP DIA.	WIDTH	SCREW SIZE
KAC19	16-20 mm	16 mm	M5 x 20 R/H screw & nut
KAC25	21-25 mm	16 mm	M5 x 20 R/H screw & nut
KAC31	27-32 mm	16 mm	M5 x 20 R/H screw & nut
KAC42	40-44 mm	20 mm	M5 x 20 R/H screw & nut
KAC48	47-51 mm	20 mm	M5 x 20 R/H screw & nut



**General Arrangement of Assembly with Cable Clamp and Drop Rod**

### Drop Rod Locators



CODE	DROP ROD SIZE
KRC06	M6
KRC08	M8
KRC10	M10

AVAILABLE FINISH	
SUFFIX	DESCRIPTION
H	Hot Dip Galvanised
Z	Zinc Passivated
S	316 Stainless Steel

**When Ordering** add suffix to end of product code

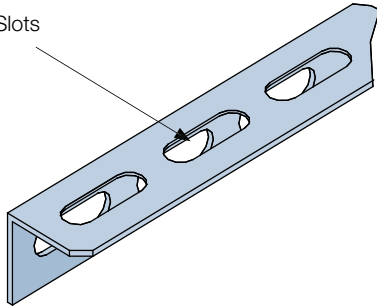
E.&O.E.

## K-Strut Fittings

### Supports/Hangers

#### Slotted Angle

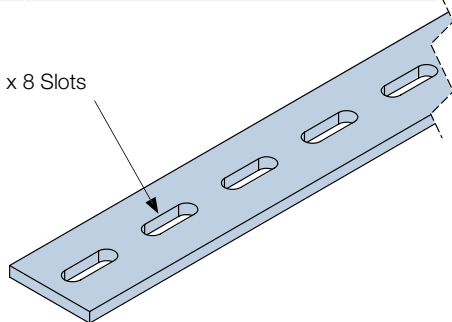
26 x 8.5 Slots



CODE	DESCRIPTION
KSA25	25 x 25 x 3.0 mm Slotted Angle MATERIAL: Hot Dip Galvanised LENGTH: 3 m
KSA40	40 x 40 x 4 mm Slotted Angle MATERIAL: Hot Dip Galvanised LENGTH: 3 m
KSA50	50 x 50 x 5.0 mm Slotted Angle MATERIAL: Hot Dip Galvanised LENGTH: 5.0 m

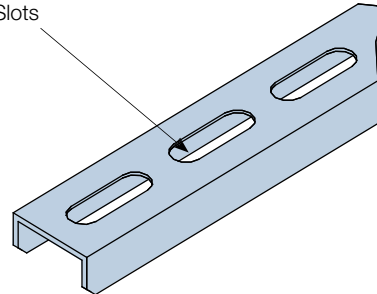
CODE	DESCRIPTION
KSF40	40 x 40 x 5.0 mm Slotted Flat MATERIAL: Hot Dip Galvanised LENGTH: 3.0 m

25 x 8 Slots



#### Slotted Channel

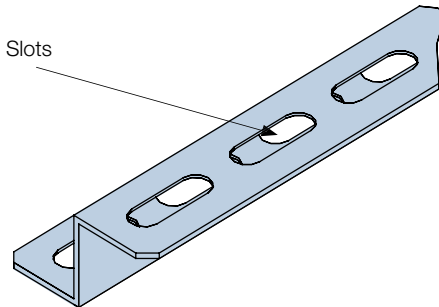
26 x 8.5 Slots



CODE	DESCRIPTION
KSC25	25 x 25 x 1.6 mm Slotted Channel MATERIAL: Plain Galvanised Iron Other finishes available on request LENGTH: 2.4 m

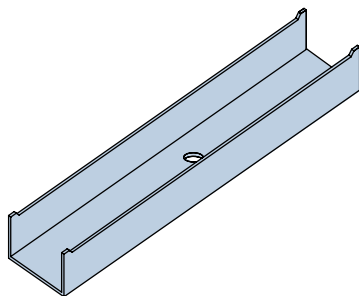
#### Slotted Z Bar

26 x 8.5 Slots



CODE	DESCRIPTION
KSZ25	25 x 25 x 1.6mm Slotted Z Bar MATERIAL: Plain Galvanised Iron Other finishes available on request LENGTH: 2.4m

### Light Duty Tray Hangers



CODE	DESCRIPTION
KTH75	Suits 77 mm wide tray
KTH100	Suits 100 mm wide tray
KTH150	Suits 150 mm wide tray
KTH230	Suits 230 mm wide tray
KTH300	Suits 300 mm wide tray
KTH450	Suits 450 mm wide tray
KTH600	Suits 600 mm wide tray

AVAILABLE FINISH	
SUFFIX	DESCRIPTION
H	Hot Dip Galvanised
S	316 Stainless Steel

**When Ordering** add suffix to end of product code

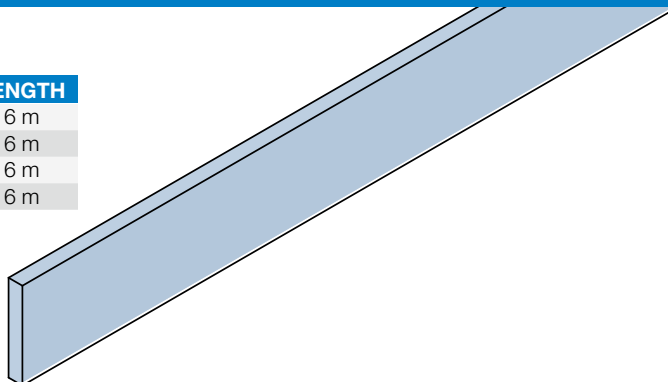
E.&O.E.

## Structural Steel Hot Dip Galvanised

### MS Flat Bar

CODE	SIZE	LENGTH
KF506	50 x 6 mm	6 m
KF756	75 x 6 mm	6 m
KF1006	100 x 6 mm	6 m
KF1506	150 x 6 mm	6 m

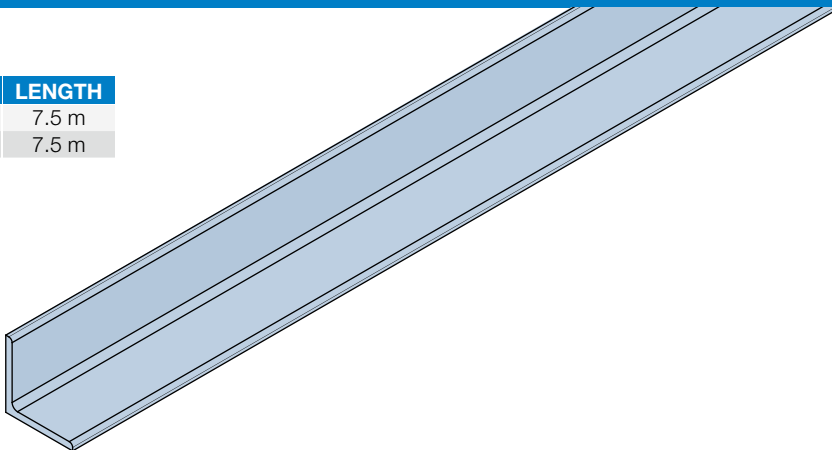
Other sizes available on request



### MS Equal Angle

CODE	SIZE	LENGTH
KA506	50 x 50 x 6 mm	7.5 m
KA756	75 x 75 x 6 mm	7.5 m

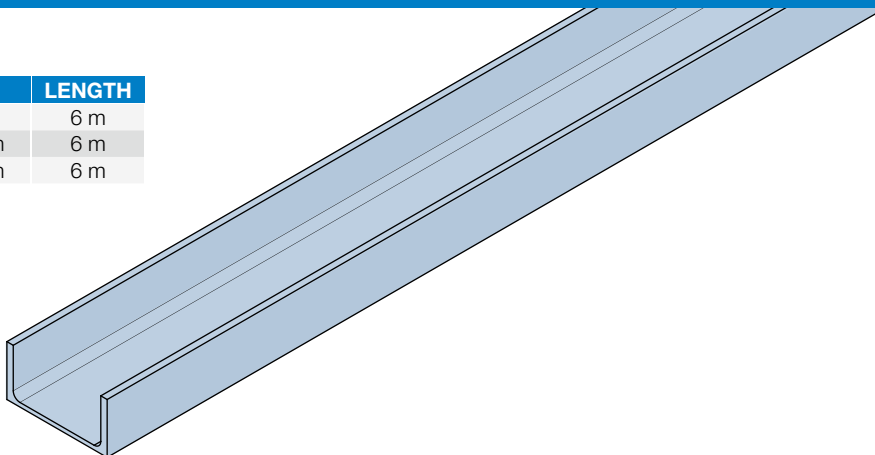
Other sizes available on request



### MS Channel

CODE	SIZE	LENGTH
KC74	75 x 40 mm	6 m
KC105	100 x 50 mm	6 m
KC157	150 x 75 mm	6 m

Other sizes available on request



STRUCTURAL STEEL: AS/NZS 3679  
 HOT DIP GALVANISED: AS/NZS 4680

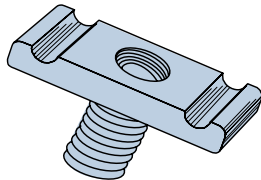
E.&O.E.



## K-Strut Fittings

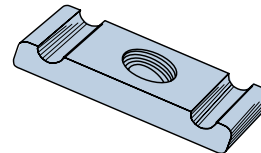
### Channel Nuts

**Channel Nut- Long Spring for K1000/K2000 Channel**

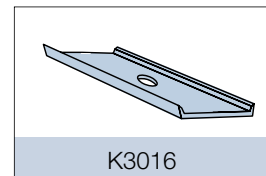


CODE	SIZE
K1006	M6
K1007	M8
K1008	M10
K1010	M12
K1012	M16

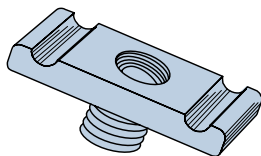
**Channel Nut- Without Spring for all Channel Types**



CODE	SIZE
K3016	M6
K3006	M6
K3007	M8
K3008	M10
K3010	M12
K3012	M16

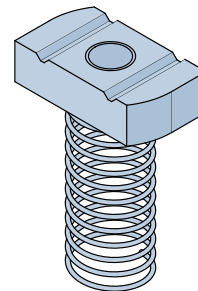


**Channel Nut- Short Spring for K3300/K4000 Channel**



CODE	SIZE
K4006	M6
K4007	M8
K4008	M10
K4010	M12

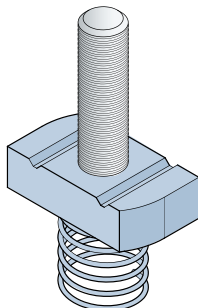
**Channel Nut- Long Spring for K5500 Channel**



CODE	SIZE
K5508	M10
K5510	M12

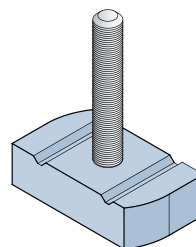
### Stud Nuts

**Stud Nut – Long Spring for K1000 Channel**



CODE	SIZE
K2378	M6
K2379	M8
K2380	M10
K2381	M12

**Stud Nut without Spring**



CODE	SIZE
K3116	M6

#### AVAILABLE FINISH

SUFFIX	DESCRIPTION
H	Hot Dip Galvanised
Z	Zinc Passivated
S	316 Stainless Steel

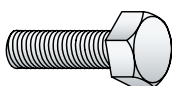
**When Ordering** add suffix to end of product code

E.&O.E.

# K-Strut Fittings

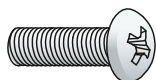
## Fasteners

### Hex Head Set Screws



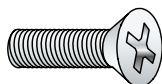
CODE	SIZE
HHS0620	M6 x 20
HHS0625	M6 x 25
HHS0820	M8 x 20
HHS0825	M8 x 25
HHS0830	M8 x 30
HHS1020	M10 x 20
HHS1025	M10 x 25
HHS1030	M10 x 30
HHS1040	M10 x 40
HHS1225	M12 x 25
HHS1230	M12 x 30
HHS1240	M12 x 40
HHS1260	M12 x 60
HHS1640	M16 x 40

### Pan Head Screws



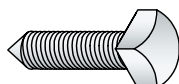
CODE	SIZE
PHS0620	M6 x 20
PHS0625	M6 x 25
PHS0825	M8 x 25

### Countersunk Head Screws



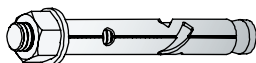
CODE	SIZE
CKS0616	M6 x 16
CKS0620	M6 x 20
CKS0820	M8 x 20

### Cone Point Set Screws



CODE	SIZE
CPS1040	M10 x 40
CPS1240	M12 x 40
CPS1250	M12 x 50

### Concrete Anchor Hex Head



CODE	SIZE
DB0840	M8 x 40
DB1040	M10 x 40
DB1050	M10 x 50
DB1075	M10 x 75
DB1260	M12 x 60
DB12100	M12 x 100

### Nylon Anchor



ZINC	SIZE
KNMH6538	6.5 x 38



### Threaded Rod

CODE	SIZE
KR06	M6
KR08	M8
KR10	M10
KR12	M12
KR16	M16



### Threaded Rod Coupler

CODE	SIZE
KC06	M6
KC08	M8
KC10	M10
KC12	M12
KR16	M16



### Hexagonal Nuts

CODE	SIZE
HN06	M6
HN08	M8
HN10	M10
HN12	M12
HN16	M16



### Flat Washers

CODE	SIZE
FW06	M6
FW08	M8
FW10	M10
FW12	M12
FW16	M16



### Spring Washers

CODE	SIZE
SW06	M6
SW08	M8
SW10	M10
SW12	M12
SW16	M16



### Anchor/Drop in Type

CODE	SIZE
DIM06	M6 x 25
DIM08	M8x30
DIM10	M10 x 40
DIM12	M12 x 50
DIM16	M16 x 65

### AVAILABLE FINISH

SUFFIX	DESCRIPTION
H	Hot Dip Galvanised
Z	Zinc Passivated
S	316 Stainless Steel

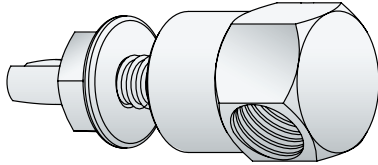
When Ordering add suffix to end of product code

E.&O.E.

## K-Strut Fittings

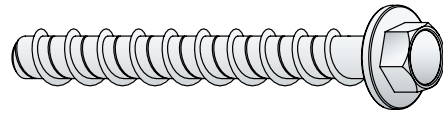
### Fasteners

#### Steel Sidehanger



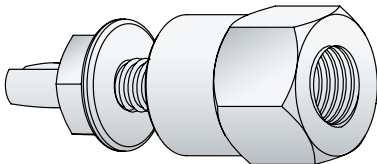
CODE	DESCRIPTION
SHM06	SD3 – 1/4" -20 x 25
SHM10	SD3 – 1/4" -20 x 25 with nuts
SHM08	SD3 – 1/4" -20 x 25 with nuts
SHM12	SD3 – 1/4" -20 x 25 with nuts

#### Zinc Plated Concrete Screw



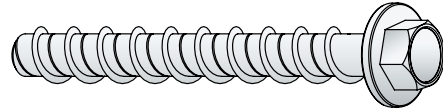
CODE	DESCRIPTION
BT1060	10 x 60 mm
BT1075	10 x 75 mm
BT1275	12 x 75 mm
BT550	5 x 50 mm
BT6550	6.5 x 50 mm
BT850	8 x 50 mm
BT875	8 x 75 mm

#### Steel Vertical Hanger



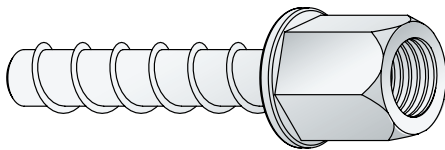
CODE	DESCRIPTION
VHM06	SD3 – 1/4" -20 x 25
VHM10	SD3 – 1/4" -20 x 25 with nuts
VHM08	SD3 – 1/4" -20 x 25 with nuts

#### Mechanically Galvanised Concrete Screw



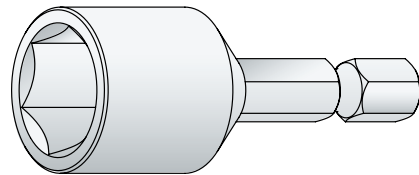
CODE	DESCRIPTION
BT1060	10 x 60 mm
BT1075	10 x 75 mm
BT1275	12 x 75 mm
BT550	5 x 50 mm
BT6550	6.5 x 50 mm
BT850	8 x 50 mm
BT875	8 x 75 mm

#### Concrete Vertical Hanger



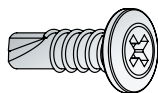
CODE	DESCRIPTION
VH6532-M08	6.5 mm x 32 mm
VH6538-M10	6.5 mm x 38 mm

#### Socket Driver



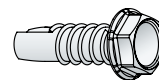
CODE	DESCRIPTION
SD-M8	Socket Driver for M6
SD-M10	Socket Driver for M8

#### 10-16 x 16 Posidrive Tek Scev



WHKH

#### 10-16 x 16 Hexhead Tek Scev



CSKHIO

E.&O.E.

## Weight Tables

CABLE LADDER & FITTINGS						
Kounis Type		2/30	3/50	4/70L	4/70	5/112
Straight Ladder 6 m Length	150 mm	19.70	26.20	32.30	39.28	44.98
	300 mm	22.30	29.08	35.17	42.13	47.83
	450 mm	24.90	31.95	38.05	47.11	52.82
	600 mm	27.50	34.83	40.93	50.67	56.38
	750mm	30.10	37.70	43.80	54.24	59.94
	900 mm	32.70	44.89	50.99	57.80	63.50
Splice Plate		0.30	0.47	1.32	1.63	1.86

Kounis Type		2/30	3/50	4/70L & 4/70	5/112	3/50	4/70L & 4/70	5/112	3/50	4/70L & 4/70	5/112
Radius		300R	300R	300R	300R	450R	450R	450R	600R	600R	600R
Bend Fitting 90°	150 mm	1.62	2.72	4.25	5.72	3.34	5.06	6.92	4.13	6.04	8.15
	300 mm	2.36	3.50	5.14	6.75	4.46	6.27	8.28	5.09	7.08	9.34
	450 mm	3.32	4.78	6.50	8.75	5.41	7.32	9.99	6.51	8.61	11.61
	600 mm	4.18	5.72	7.55	10.11	6.99	9.00	12.15	7.63	9.83	13.17
	750 mm	6.00	6.68	8.60	11.46	8.12	10.21	13.71	8.73	11.04	14.74
	900 mm	7.80	8.60	10.60	12.83	10.42	12.62	15.29	12.25	14.64	17.49
Riser Internal / External Fitting 90°	150 mm	1.50	2.45	4.03	5.54	3.24	5.01	6.90	3.86	5.83	7.96
	300 mm	1.82	2.77	4.35	5.86	3.71	5.49	7.38	4.34	6.31	8.43
	450 mm	2.14	3.09	4.67	6.41	4.19	5.96	8.22	4.82	6.79	9.26
	600 mm	2.46	3.41	4.99	6.81	4.67	6.44	8.82	5.30	7.27	9.86
	750 mm	2.78	3.73	5.31	7.20	5.15	6.92	9.42	5.78	7.75	10.45
	900 mm	3.10	4.53	6.11	7.60	6.35	8.12	10.02	6.98	8.95	11.04
Equal Tee Fitting	150 mm	3.92	5.50	7.25	9.31	7.40	9.41	12.33	9.98	12.67	15.91
	300 mm	5.20	6.61	8.45	10.65	8.83	10.91	14.01	11.74	14.50	17.89
	450 mm	6.68	8.21	10.12	13.05	10.10	12.38	16.29	13.33	16.18	20.54
	600 mm	7.24	9.49	11.48	14.75	12.00	14.26	18.62	15.57	18.50	23.43
	750 mm	8.47	10.77	12.82	16.47	13.43	15.76	20.54	17.33	20.34	25.73
	900 mm	9.70	14.45	16.58	19.35	17.49	19.91	23.66	22.20	25.29	29.21
Equal Cross Fitting	150 mm	4.77	7.65	10.52	13.11	10.56	13.57	17.19	14.51	18.14	21.96
	300 mm	5.94	8.82	11.70	14.27	11.89	14.91	18.53	16.48	20.12	23.92
	450 mm	7.61	10.48	13.35	16.62	13.23	16.24	20.58	18.29	21.93	26.78
	600 mm	8.93	11.81	14.69	18.18	15.20	18.21	22.95	20.75	24.38	29.72
	750 mm	10.26	13.14	16.02	19.74	16.69	19.71	24.73	22.84	26.48	32.20
	900 mm	14.23	17.11	19.99	22.49	21.06	24.08	27.70	28.29	31.92	35.61
Bend Fitting 45°	150 mm	0.85	1.77	3.12	4.14	2.08	3.47	4.75	2.40	3.89	5.26
	300 mm	1.18	2.25	3.59	4.74	2.56	4.01	5.37	2.88	4.41	5.88
	450 mm	1.66	2.72	4.11	5.57	3.04	4.53	6.21	3.36	4.94	6.71
	600 mm	2.09	3.20	4.65	6.26	4.15	5.68	7.69	4.46	6.10	8.18
	750 mm	3.00	3.67	5.17	6.94	4.79	6.36	8.57	5.10	6.78	9.05
	900 mm	3.90	4.63	6.16	7.62	6.14	7.78	9.45	6.46	8.19	9.94
Riser Internal / External Fitting 45°	150 mm	0.90	1.72	3.05	4.12	2.04	3.45	4.75	2.34	3.86	5.26
	300 mm	1.10	2.04	3.37	4.44	2.36	3.77	5.07	2.66	4.18	5.58
	450 mm	1.30	2.36	3.69	5.00	2.68	4.09	5.62	2.98	4.50	6.13
	600 mm	1.47	2.68	4.01	5.39	3.00	4.41	6.02	3.30	4.82	6.53
	750 mm	1.70	3.00	4.33	5.79	3.32	4.73	6.42	3.62	5.14	6.92
	900 mm	1.86	3.79	5.13	6.18	4.11	5.53	6.82	4.42	5.94	7.32
Reducers Straight & Offset	300 mm- 150mm	0.93	2.20	3.47	4.63	2.20	3.47	4.63	2.20	3.47	4.63
	450 mm- 300mm	1.25	2.52	3.79	4.95	2.52	3.79	4.95	2.52	3.79	4.95
	600 mm- 450mm	1.70	2.97	3.95	5.85	2.97	3.95	5.85	2.97	3.95	5.85
	750 mm- 600 mm	1.89	3.16	4.43	5.94	3.16	4.43	5.94	3.16	4.43	5.94

**Note: Weight table includes Hot Dip Galvanised and 316 Stainless Steel**

E.&O.E.

## Weight Tables

CABLE TRAY SYSTEMS							
Kounis Type	Light Duty Tray				Punched Tray		
Range/Finish	LD Galvabond	LD Aluminium	LD HDG	LD 316 SS	CP Galvabond	KAPT Galvabond	CT HDG
75 mm	2.18	1.91	2.29	2.61	1.56	1.22	5.3
100 mm	2.54	2.22	2.66	3.04	1.93	1.51	6.21
150 mm	3.29	2.89	3.46	3.94	2.67	2.1	7.79
230 mm	4.45	3.9	4.67	5.33	3.86	2.96	10.33
300 mm	5.52	4.84	5.79	6.61	4.89	3.83	12.55
450 mm	11.68	6.79	12.26	9.27	10.74	5.58	17.3
600 mm	15.03	8.74	15.78	11.93	14.09	7.32	22.05
Splice Plates	0.2	0.18	0.21	0.24	0.2	N/A	0.11

Kounis Type	Ladder Tray			
Range/Finish	KT3 Galvabond	KT3 HDG	KT5 Galvabond	KT5 HDG
150 mm	5.8	6.15	7.2	7.64
300 mm	8.6	9.17	9.9	10.5
450 mm	11.4	12.09	12.6	13.36
600 mm	14.2	15.06	15.3	16.22
Splice Plate	0.17	0.18	0.32	0.34

STANDARD CABLE DUCT						
Duct x 2.4 m Length	Screw Lid			Clip Lid		
	CODE	Duct Size	Weight kg	CODE	Duct Size	Weight kg
	KDS75	75 x 50 mm	3.94	KDC75	75 x 50	3.77
	KDS155	150 x 50 mm	3.94	KDC155	150 x 50	3.77
	KDS55	50 x 50 mm	3.49	KDC55	50 x 50	3.45
	KDS77	75 x 75 mm	5.05	KDC77	75 x 75	4.99
	KDS107	100 x 75 mm	4.68	KDC107	100 x 75	4.45
	KDS1517	150 x 75 mm	6.26	KDC1517	150 x 75	5.93
	KDS105	100 x 50 mm	4.97	KDC105	100 x 50	4.8
	KDS1010	100 x 100 mm	6.45	KDC1010	100 x 100	6.22
	KDS1510	150 x 100 mm	8.04	KDC1510	150 x 100	7.9
	KDS2010	200 x 100 mm	9.23	KDC2010	200 x 100	8.9
	KDS3015	300 x 150 mm	1.03	KDC3015	300 x 150	1.22
	KDS1515	150 x 150 mm	9.43	KDC1515	150 x 150	9.39

STANDARD PEAK COVER									
Material Thickness	0.6 mm Galvabond	1.2 mm Galvabond	1.55 mm Galvabond	1.2 mm HDG	1.6 mm HDG	0.6 mm 316SS	1.0 mm Aluminium	2.0 mm HDG	
Straight Cover 3 m Length	150 mm	3.15	6.37	8.79	7.05	9.35	3.28	1.85	11.18
	300 mm	5.55	11.21	15.46	11.5	16.45	5.77	3.25	19.82
	450 mm	7.94	16.05	22.13	15.93	23.55	8.27	4.65	28.46
	600 mm	10.33	20.89	28.8	20.39	30.64	10.76	6.05	37.1
	750 mm	12.74	25.75	35.5	24.83	37.78	13.26	7.46	45.73
	900 mm	15.13	30.59	42.17	29.28	44.88	15.75	8.86	54.37

STANDARD FLAT COVER									
Material Thickness	0.6 mm Galvabond	1.2 mm Galvabond	1.55 mm Galvabond	1.2 mm HDG	1.6 mm HDG	0.6 mm 316SS	1.0 mm Aluminium	2.0 mm HDG	
Straight Cover x 3 m Length	150 mm	2.93	5.93	8.17	8	8.7	3.05	1.72	9.99
	300 mm	5.01	10.12	13.96	13.32	14.85	5.21	2.93	18.07
	450 mm	7.08	14.32	19.74	18.65	21	7.37	4.15	25.56
	600 mm	9.16	18.51	25.52	23.96	27.16	9.53	5.36	33.05
	750 mm	11.23	22.7	31.3	29.3	33.31	11.69	6.58	40.54
	900 mm	13.3	26.9	37.09	34.61	39.46	13.85	7.79	48.03

E.&O.E.

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