



ABN 43 008 701 335

# SECTION 3

## Cable Ladder Hot Dip Galvanised

A U S T R A L I A   W I D E   A U S T R A L I A N   M A D E



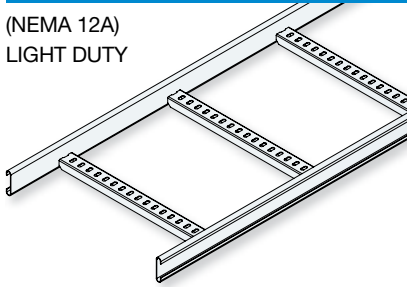
Quality Endorsed Company ISO9001 Lic No 13146

EDITION 2

## SECTION 3: Cable Ladder Hot Dip Galvanised

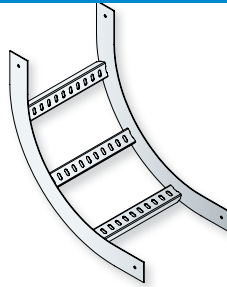
Cable Ladder Type 2/30

(NEMA 12A)  
LIGHT DUTY



> 3:3

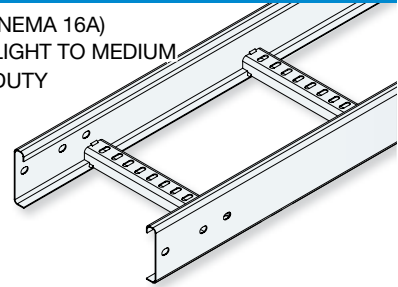
2/30 Fittings



> 3:4-3:6

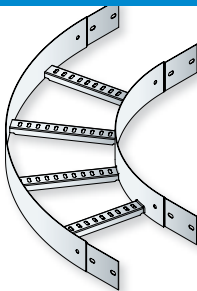
Cable Ladder Type 3/50

(NEMA 16A)  
LIGHT TO MEDIUM  
DUTY



> 3:7

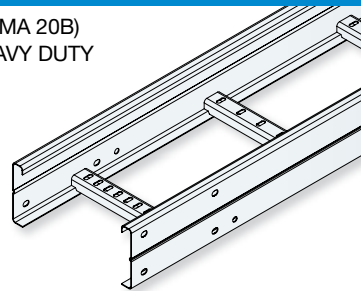
3/50 Fittings



> 3:8-3:10

Cable Ladder Type 4/70L

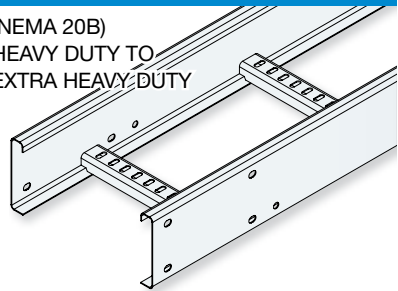
(NEMA 20B)  
HEAVY DUTY



> 3:11

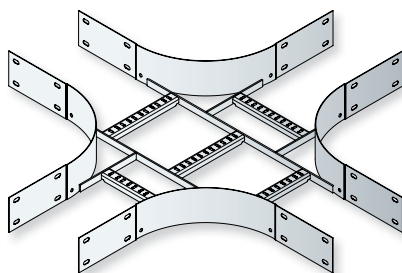
Cable Ladder Type 4/70

(NEMA 20B)  
HEAVY DUTY TO  
EXTRA HEAVY DUTY



> 3:12

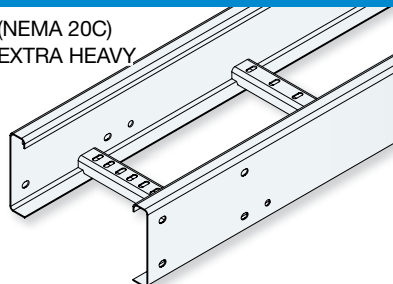
4/70L, 4/70 & 5/112 Fittings



> 3:13-3:16

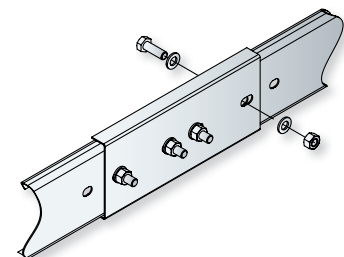
Cable Ladder Type 5/112

(NEMA 20C)  
EXTRA HEAVY



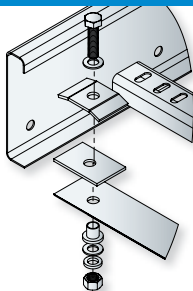
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Splice Plates



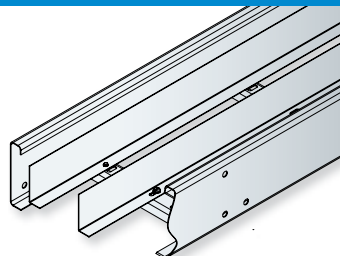
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Hold Down Clamps



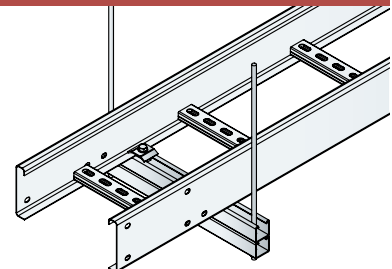
> 3:19

Barrier Strip



> 3:20

Fire Rated Cable Supports



See separate catalogue for Fire  
Rated Cable Support details

# Cable Ladder Hot Dip Galvanised

## General Description

The Kounis Group 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** Light Duty 65 mm Side (NEMA 12A), **Type 3/50** Medium to Heavy Duty 100 mm Side (NEMA 16A), **Type 4/70L** Heavy Duty 1.6 mm 130 mm Side (NEMA 20B), **Type 4/70** Heavy to Extra Heavy Duty 2.0 mm 130 mm Side (NEMA 20B) and **Type 5/112** Extra Heavy Duty 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
- 25 mm 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.

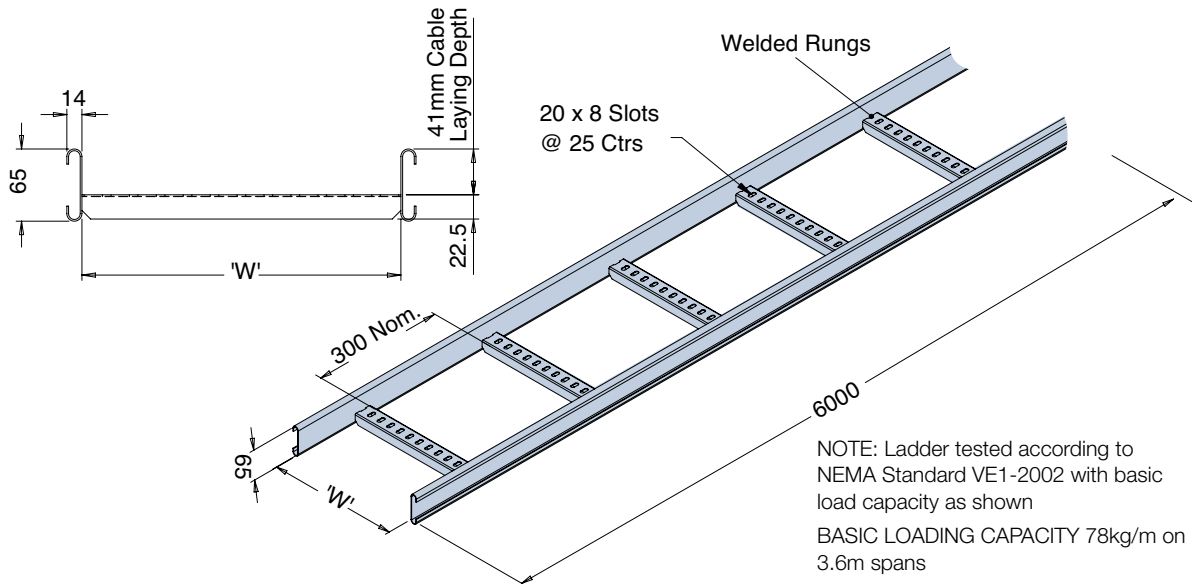
Tested to NEMA VE1-2002 Standards, Full engineering details are available on request.

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# Cable Ladder Light Duty Type 2/30 12A

## 1.6 mm Steel Galvanised

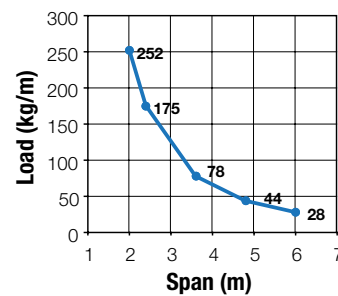
### Cable Ladder Type 2/30 Galvanised



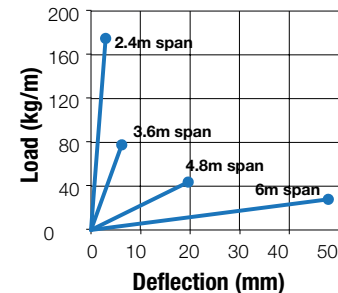
### Specification

<b>Class Designation:</b>	Cable ladder- light duty type 2/30.
<b>Material:</b>	Steel sheet.
<b>Finish:</b>	Hot dip galvanised after fabrication to: AS/NZS 4680 i.e.390gm/m <sup>2</sup> zinc, approximately 55µm.
<b>Rung Spacing:</b>	300mm spacing with slotted rungs standard
<b>Side Depth:</b>	65 mm high sided tray.
<b>Inside Depth:</b>	41 mm cable laying depth
<b>Stock Length:</b>	6000 mm standard joining together by a pair of quick fix bolt on splice plates supplied separately. No side rail drilling required.
<b>Stock Widths:</b>	150 mm, 300 mm, 450 mm & 600 mm standard widths.
<b>Fittings:</b>	A full range fitting are available e.g. bend, risers, tees, crosses & reducers.
<b>Radius:</b>	300mm 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. Hold down clamps.

### ALLOWABLE LOAD GRAPH



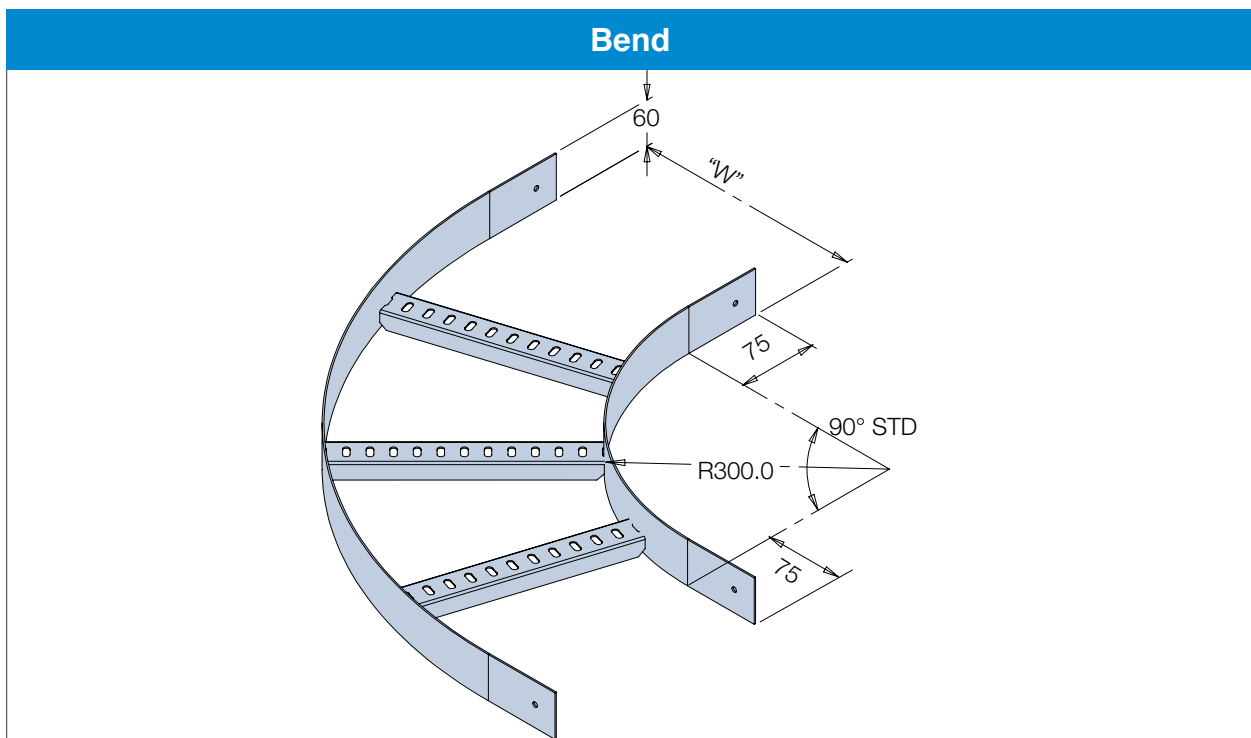
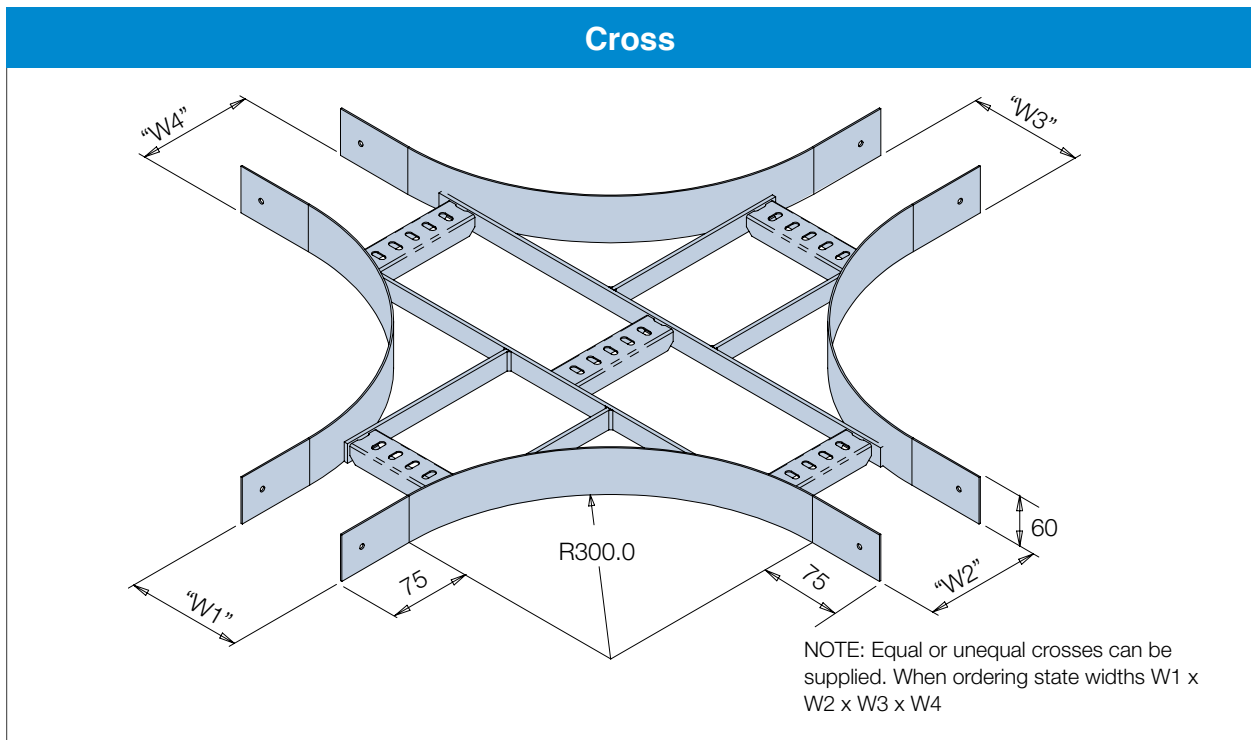
### DEFLECTION GRAPH



### When Ordering

Range	Type	Wide	Std.Finish	Fastenings	Rail Direction	Finish
<b>2C</b> 2C = 2/30 65 mm High Side 1.6 mm Gauge	<b>L</b> L = Straight 6 metre 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	<b>K</b> K = includes all required Splice plates with Bolts and nuts	Only supplied with Rail Out standard rail (see Rail note)	<b>PC-COL</b> PC-COL = paint Painted finish to Kounis standard colour range
RAIL NOTE: This Ladder (RO) is a Kounis standard and will not show in a supply code. Rail In ladder is not available.		Ordering example shown: 2/30 Cable Ladder 150mm wide x 6 metre HDG c/w Splice Plates Bolts and Nuts. Painted Finish to specification colour.				

## Cable Ladder 2/30 Fittings

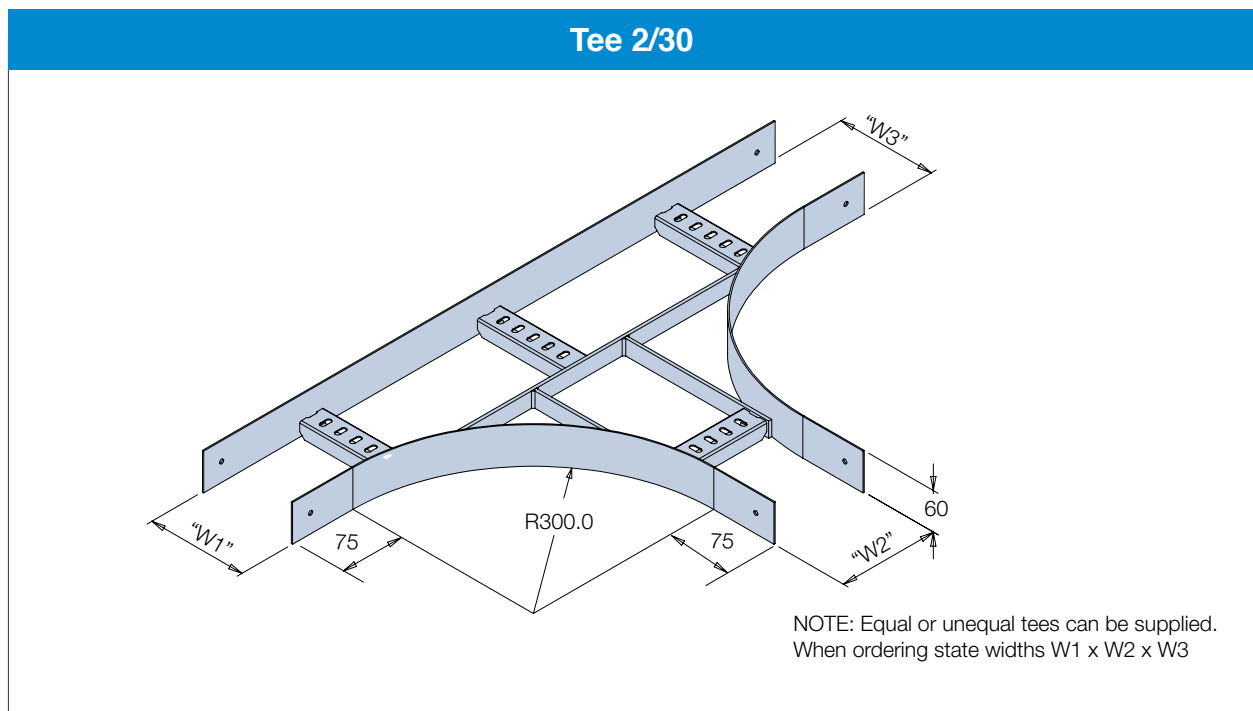
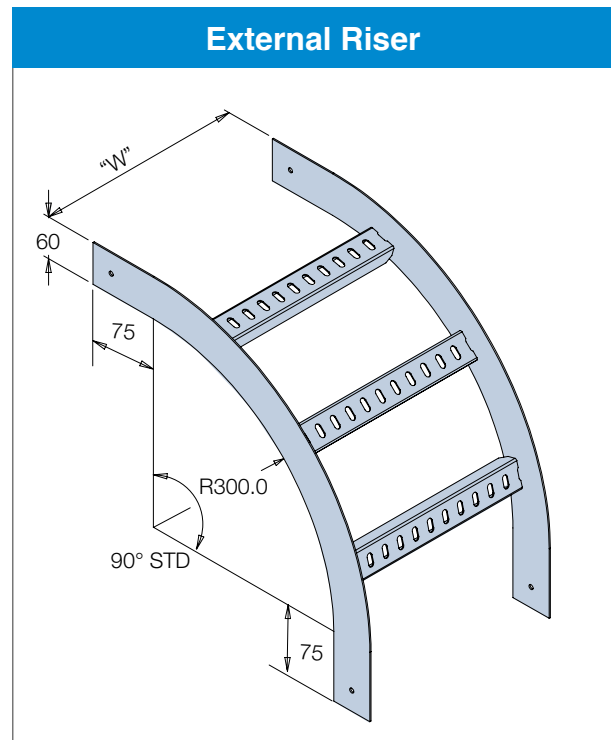
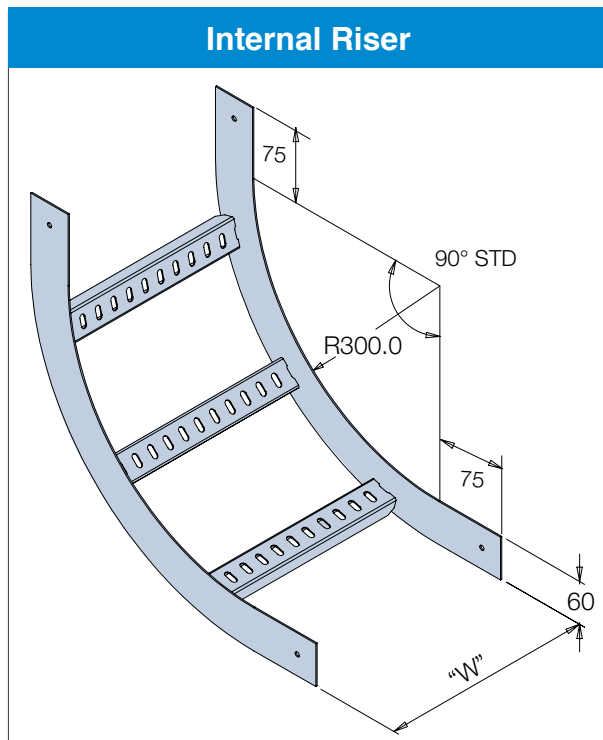


### When Ordering

Range	Type	Wide	Material	Fastenings	Rail Direction	Radius	Finish
<b>2C</b> 2C = 2/30 65 mm High Side 1.6 mm thk.	<b>B</b> B = Bend 90° (see Ordering note) C = Cross Equal	<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 = Mild Steel Hot Dip Galv S = 316 Stainless Steel A = Aluminium	<b>K</b> K = includes all required Bolts and nuts	Only supplied with Rail Out standard rail	<b>3</b> 3 = 300 mm	<b>PC-COL</b> PC-COL = paint Painted finish to Kounis standard colour range
RAIL NOTE: This Ladder (RO) is a Kounis standard and will not show in a supply code. Rail In ladder is not available.		ORDERING EXAMPLE SHOWN: 2/30 Cable Ladder 90° Bend 150mm wide HDG 300mm Radius c/w Bolts and Nuts. Painted Finish to specification colour					

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## Cable Ladder 2/30 Fittings



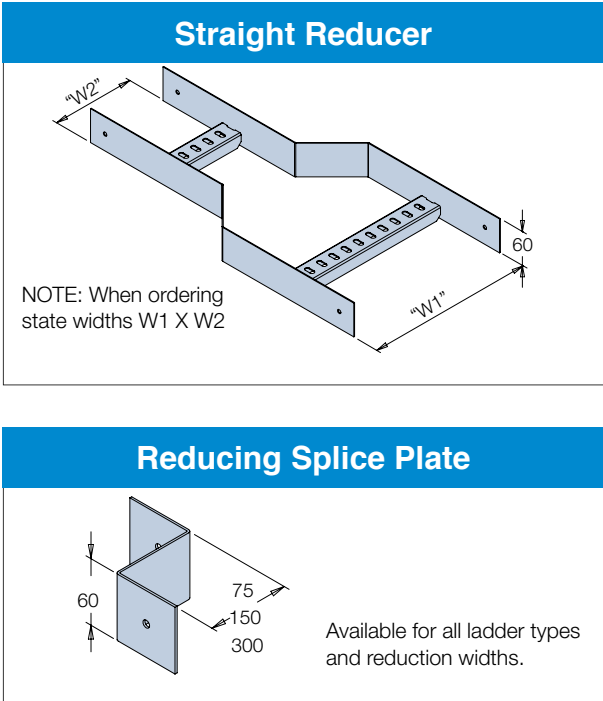
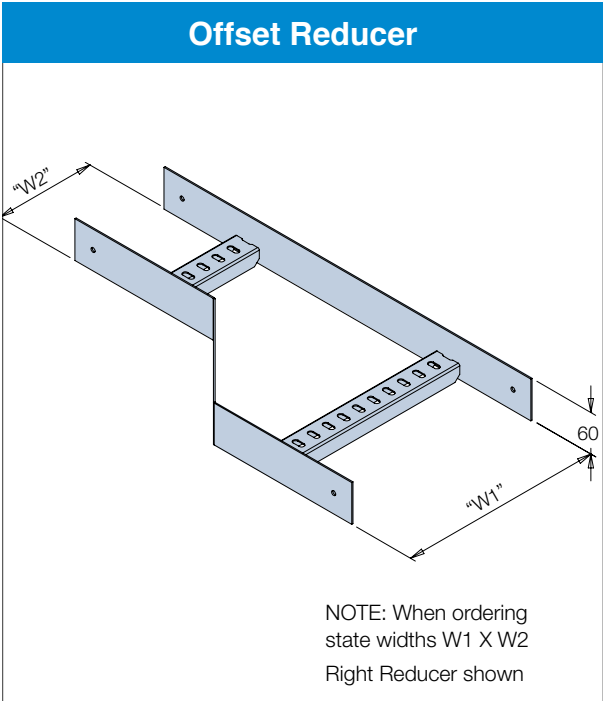
### When Ordering

Range	Type	Wide	Material	Fastenings	Rail Direction	Radius	Finish
<b>2C</b> 2C = 2/30 65mm High Side 1.6mm thk.	<b>RI</b> RI = Internal Riser 90° RX=External Riser 90° (see Ordering note) T = Tee Equal	<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 = Mild Steel Hot Dip Galv	<b>K</b> K = includes all required Bolts and nuts	Only supplied with Rail Out standard rail (see Rail note)	<b>3</b> 3 = 300 mm	<b>PC-COL</b> PC-COL = paint Painted finish to Kounis standard colour range
<p>RAIL NOTE: This Ladder (RO) is a Kounis standard and will not show in a supply code. Rail In ladder is not available.</p> <p>ORDERING EXAMPLE SHOWN: 2/30 Cable Ladder 90° Internal Riser 150 mm wide HDG 300 mm Radius c/w Bolts and Nuts. Painted Finish to specification colour.</p> <p>NOTE: 45, 30 and 60° option shown after width (e.g.: 1545) code for alternative 150 mm 45° Riser.</p>							

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Cable Ladder 2/30 Fittings

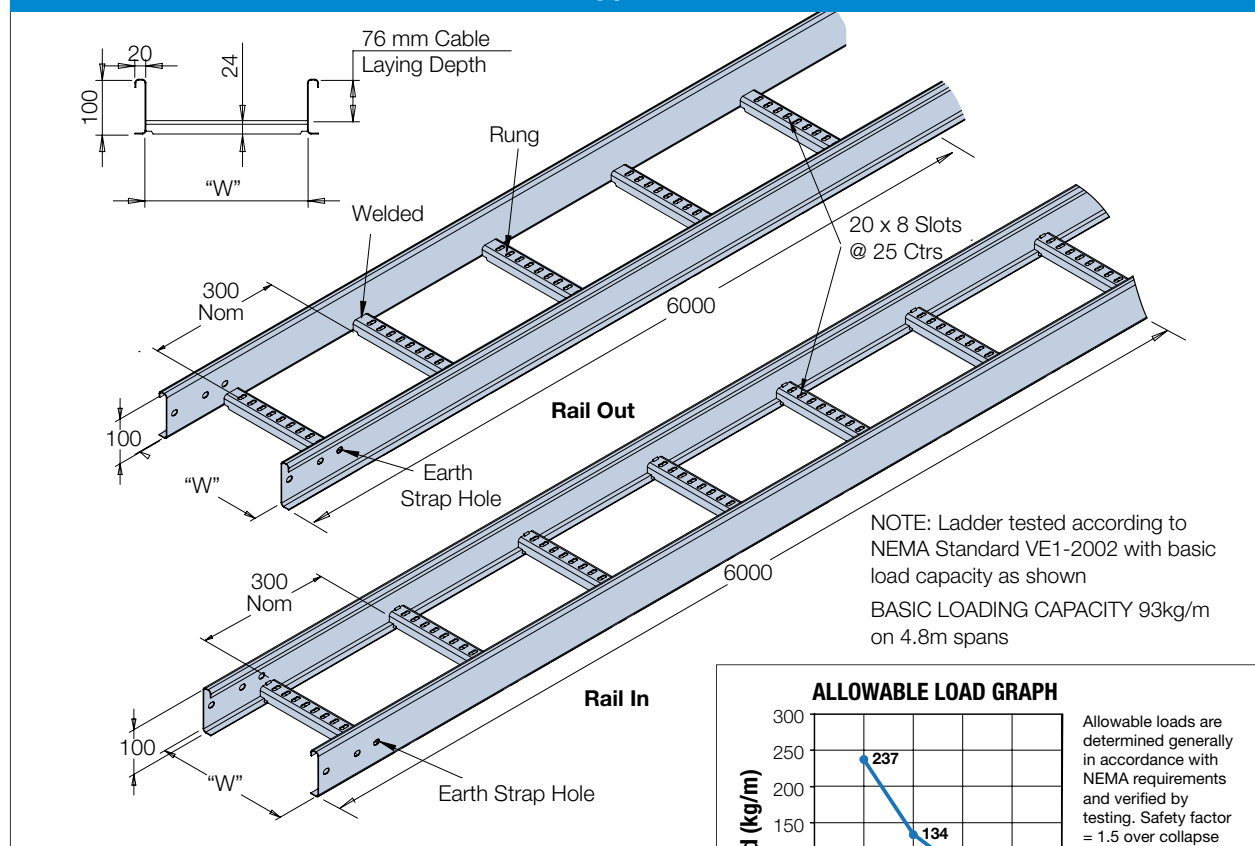


When Ordering

Range	Type	Wide	Material	Fastenings	Rail Direction	Finish
<b>2C</b>	<b>SR</b>	<b>3015</b>	<b>H</b>	<b>K</b>		<b>PC-COL</b>
2C = 2/30 65 mm High Side1.6 mm thk.	SR = Straight Reducer RR = Right Reducer LR = Left Reducer PR = Reducing Splice Plate (75-150-300 mm)	3015 = 300 to150 mm 4530 = 450 to 300 mm 6045 = 600 to 450 mm 7560 = 750 to 600 mm 9075 = 900 to 750 mm	H = Mild Steel Hot Dip Galv S= 316 Stainless Steel A = Aluminium	K = includes all required Bolts and nuts	Only supplied with Rail Out (See Rail note)	PC-COL= paint Painted finish to Kounis standard colour range
RAIL NOTE: This Ladder (RO) is a Kounis standard and will not show in a supply code. Rail In ladder is not available.		ORDERING EXAMPLE SHOWN: 2/30 Cable Ladder Straight Reducer 300 to 150 mm wide HDG c/w Bolts and Nuts. Painted Finish to specification colour.				

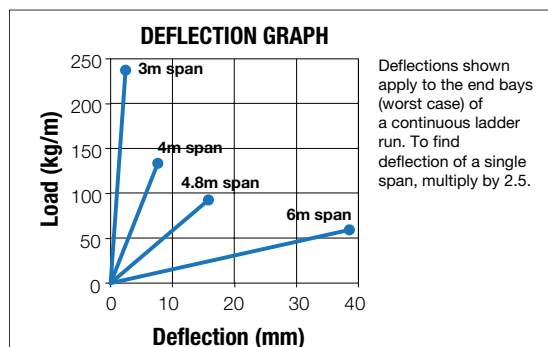
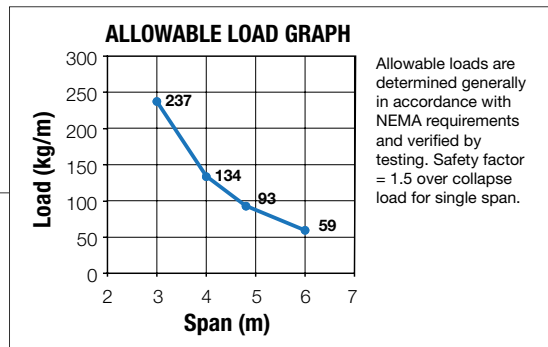
# Cable Ladder Medium To Heavy Duty Type 3/50 16A 1.6 mm Steel Galvanised

## Cable Ladder Type 3/50 Galvanised



### Specification

<b>Class Designation:</b>	Cable ladder-medium to heavy duty type 3/50
<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. Hold down clamps.

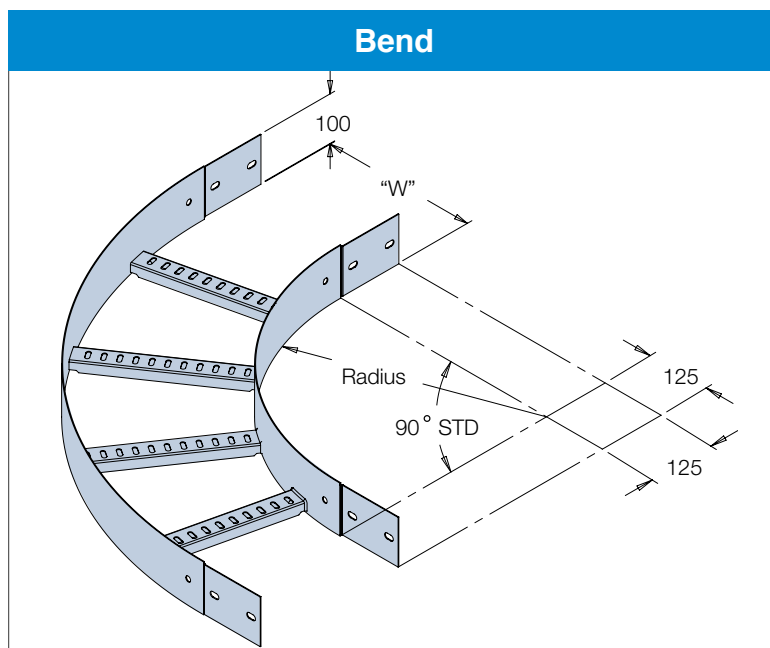
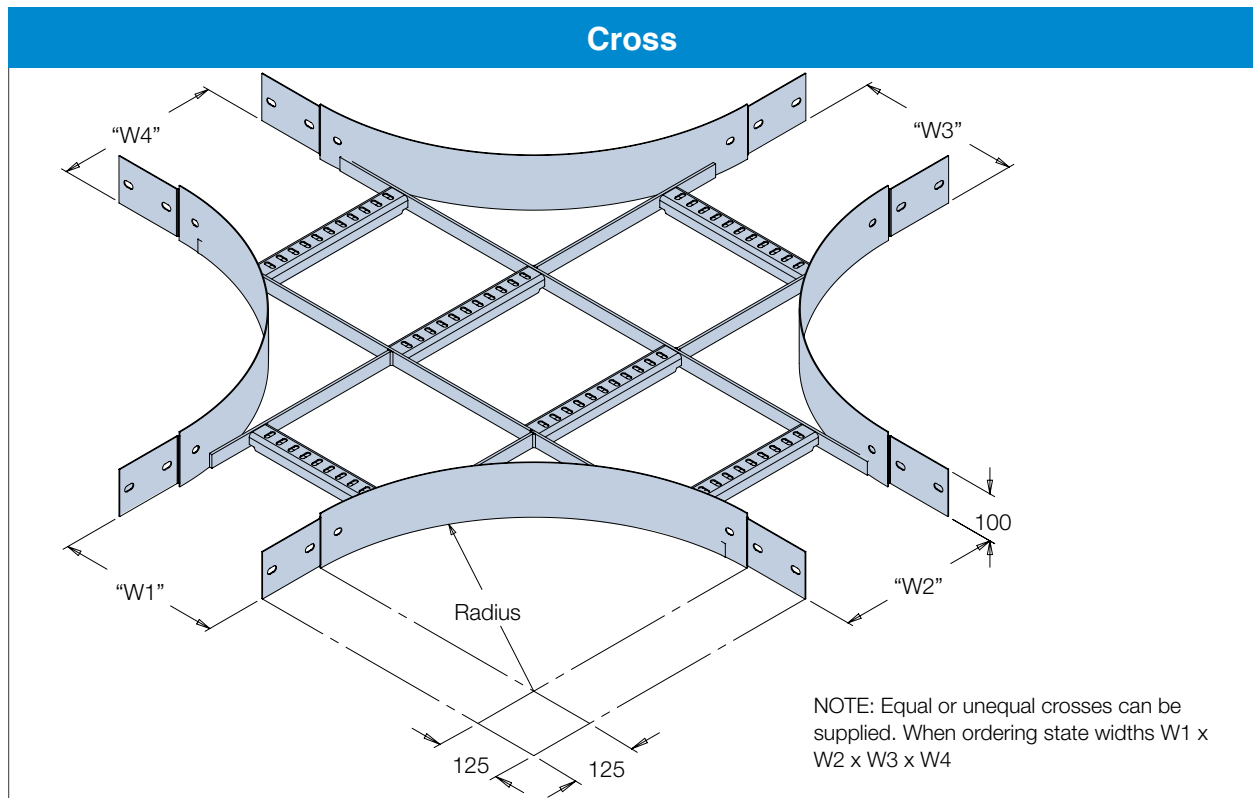


### When Ordering

Range	Type	Wide	Std.Finish	Fastenings	Rail Direction	Finish
<b>3C</b> 3C = 3/50 100 mm High Side 1.6 mm Gauge	<b>L</b> L = Straight 6 metre 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	<b>K</b> K = includes all required Splice plates with Bolts and nuts	<b>RI or RO</b> RI = Rail In RO = Rail Out (see Rail In note)	<b>PC-COL</b> PC-COL = paint Painted finish to Kounis standard colour range
NOTE: Rail In Ladder (RI) is a Kounis standard and will not show in a supply code. All Rail Out ladder will have a RO suffix shown in all supply codes.		ORDERING EXAMPLE SHOWN: 3/50 Cable Ladder 150 mm wide x 6 metre HDG c/w Splice Plates Bolts and Nuts. Painted Finish to specification colour.				



# Cable Ladder 3/50 Fittings



## Standard Fitting Radius

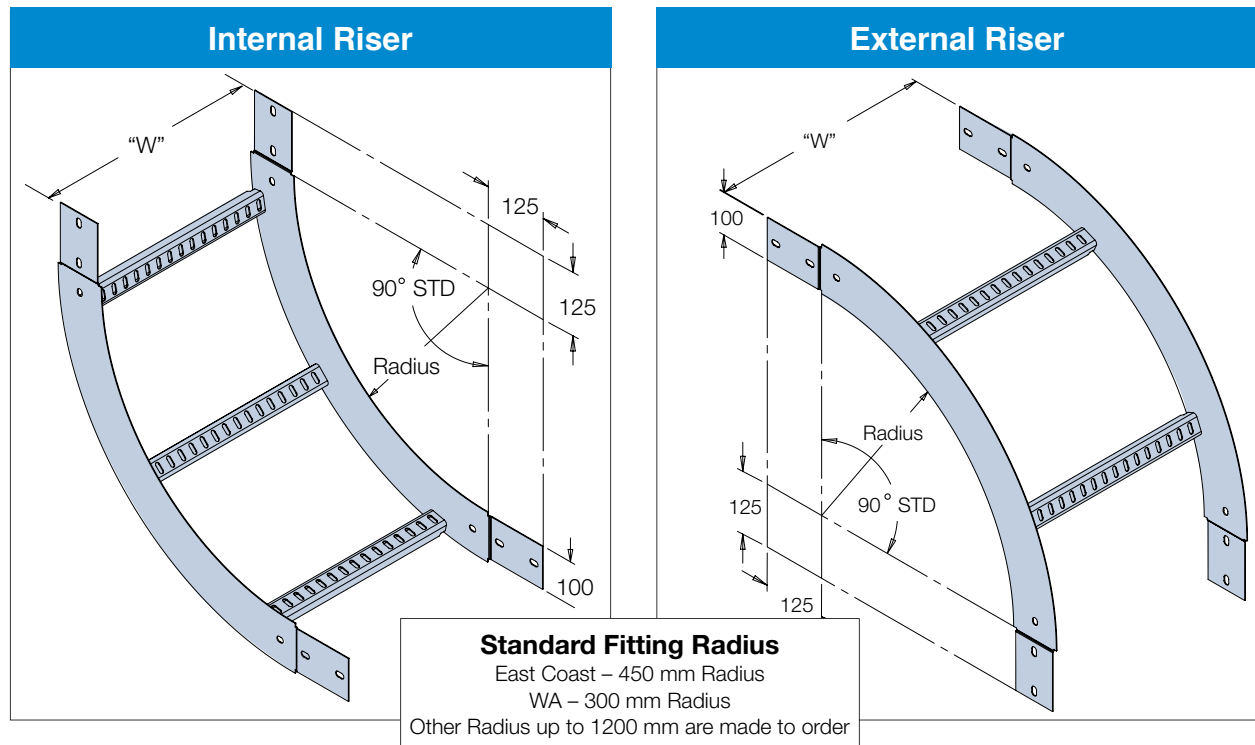
East Coast – 450 mm Radius  
WA – 300 mm Radius  
Other Radius up to 1200 mm are made to order

## When Ordering

Range	Type	Wide	Material	Fastenings	Rail Direction	Radius	Finish
<b>3C</b> 3C = 3/50 100 mm High Side 1.6 mm thk.	<b>B</b> B = Bend 90° C = Cross Equal (see Ordering note)	<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 = Mild Steel Hot Dip Galv S = 316 Stainless Steel A = Aluminium	<b>K</b> K = includes all required Bolts and Nuts	<b>RI or RO</b> RI = Rail In RO = Rail Out (See Rail In note)	<b>3</b> 3 = 300 mm 4 = 450mm 6 = 600 mm	<b>PC-COL</b> PC-COL = paint Painted finish to Kounis standard colour range
<p>NOTE: Rail In Ladder (RI) is a Kounis standard and will not show in a supply code. All Rail Out ladder will have a RO suffix shown in all supply codes.</p> <p>ORDERING EXAMPLE SHOWN: 3/50 Cable Ladder 90° Bend 150 mm wide HDG 300 mm Radius c/w Bolts and Nuts. Painted Finish to specification colour.</p> <p>Notes: 45, 30 &amp; 60° option shown after width (e.g.: 1545) code for 150 mm 45° Bend.</p> <p>Unequal Cross made to order (eg: W1-15 x W2-30 x W3-15 x W4-30) code for alternative 15301530</p>							

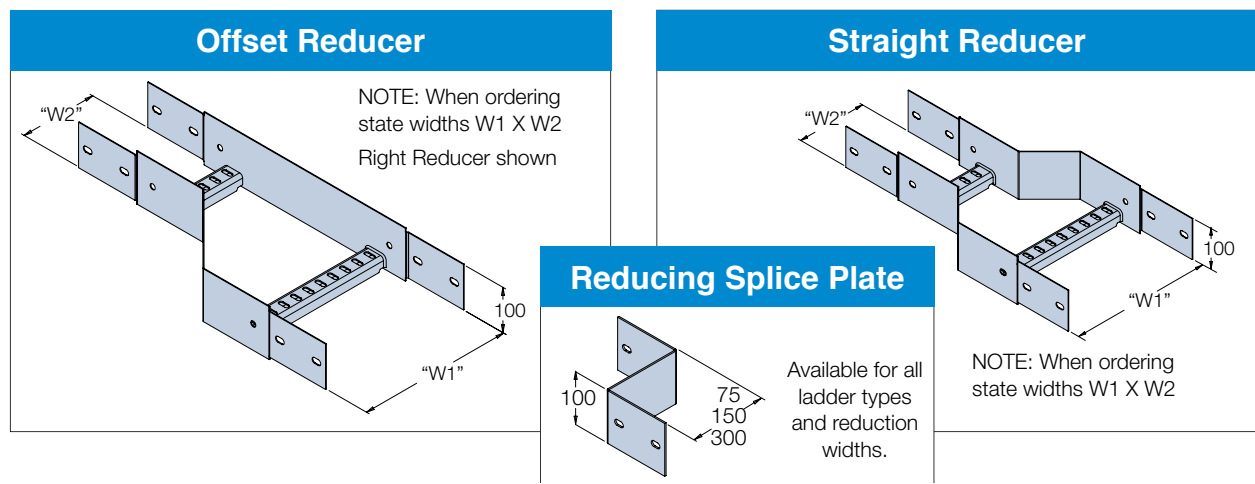
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## Cable Ladder 3/50 Fittings



### When Ordering

Range	Type	Wide	Material	Fastenings	Rail Direction	Radius	Finish
<b>3C</b> 3C = 3/50 100mm High Side 1.6mm thk	<b>RI</b> RI = Internal Riser 90° RX=External Riser 90° (see Ordering note)	<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 = Mild Steel Hot Dip Galv S = 316 Stainless Steel A = Aluminium	<b>K</b> K = includes all required Bolts and Nuts	<b>RI or RO</b> RI = Rail In RO = Rail Out (See Rail In note)	<b>3</b> 3 = 300 mm 4 = 450mm 6 = 600 mm	<b>PC-COL</b> PC-COL = paint Painted finish to Kounis standard colour range
<p>NOTE: Rail In Ladder (RI) is a Kounis standard and will not show in a supply code. All Rail Out ladder will have a RO suffix shown in all supply codes.</p> <p>ORDERING EXAMPLE SHOWN: 3/50 Cable Ladder 90° Internal Riser 150 mm wide HDG 300 mm Radius c/w Bolts and Nuts. Painted Finish to specification colour.</p> <p>NOTE: 45, 30 &amp; 60° option shown after size (e.g.: 1545) code for alternative 150 mm 45° Riser.</p>							



### When Ordering

Range	Type	Wide	Material	Fastenings	Rail Direction	Finish
<b>3C</b> 3C = 3/50 100 mm High Side 1.6 mm thk.	<b>SR</b> SR = Straight Reducer RR = Right Reducer LR = Left Reducer PR = Reducing Splice Plate (75-150-300 mm) (See Ordering note)	<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 = Mild Steel Hot Dip Galv S = 316 Stainless Steel A = Aluminium	<b>K</b> K = includes all required Bolts and nuts	<b>RI or RO</b> RI = Rail In RO = Rail Out (See Rail In note)	<b>PC-COL</b> PC-COL = paint Painted finish to Kounis standard colour range
<p>NOTE: Rail In Ladder (RI) is a Kounis standard and will not show in a supply code. All Rail Out ladder will have a RO suffix shown in all supply codes.</p> <p>ORDERING EXAMPLE SHOWN: 3/50 Cable Ladder Straight Reducer 300 to 150 mm wide HDG c/w Bolts and Nuts. Painted Finish to specification colour.</p>						

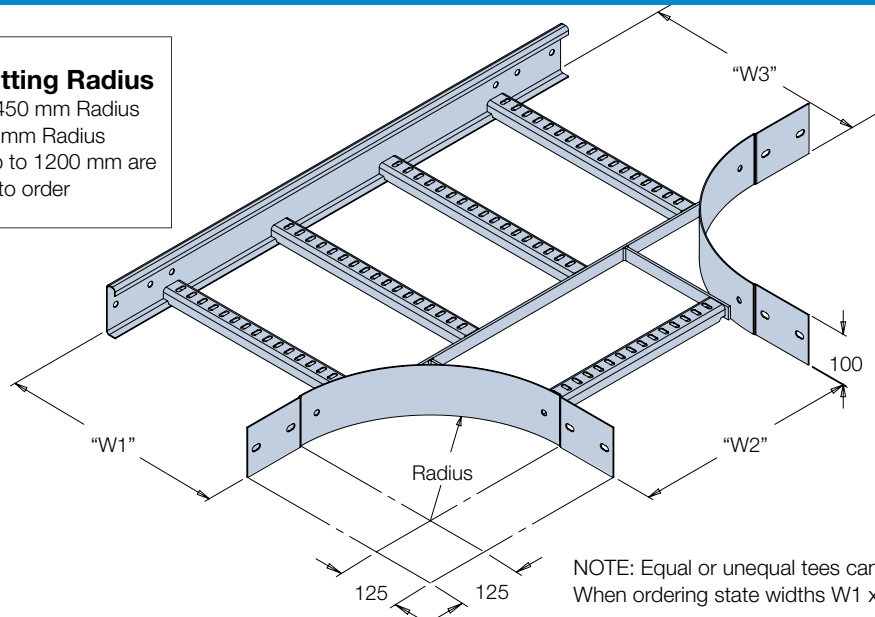
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# Cable Ladder 3/50 Fittings

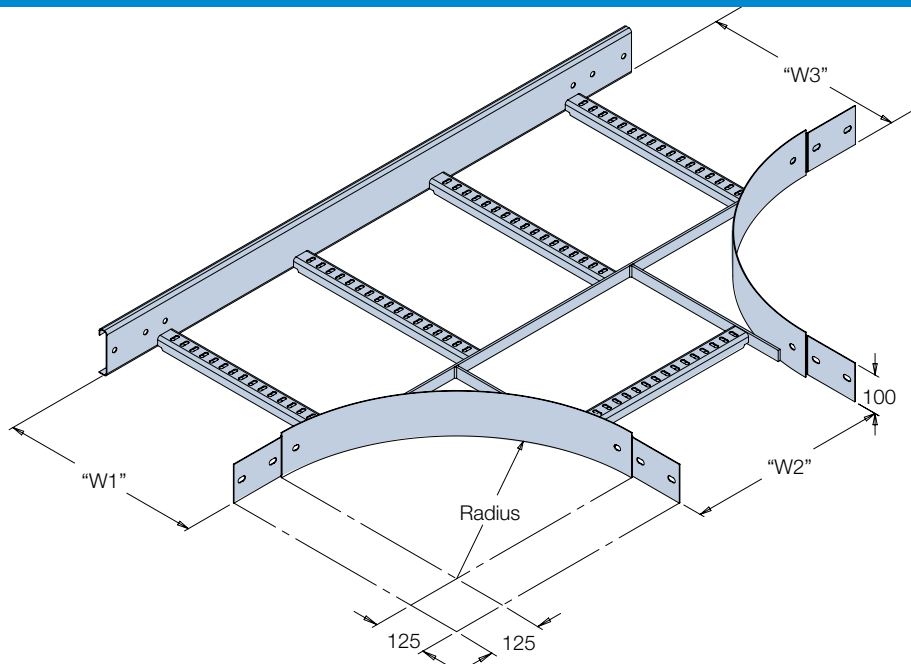
## Rail In Tee 3/50

### Standard Fitting Radius

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



## Rail Out Tee 3/50



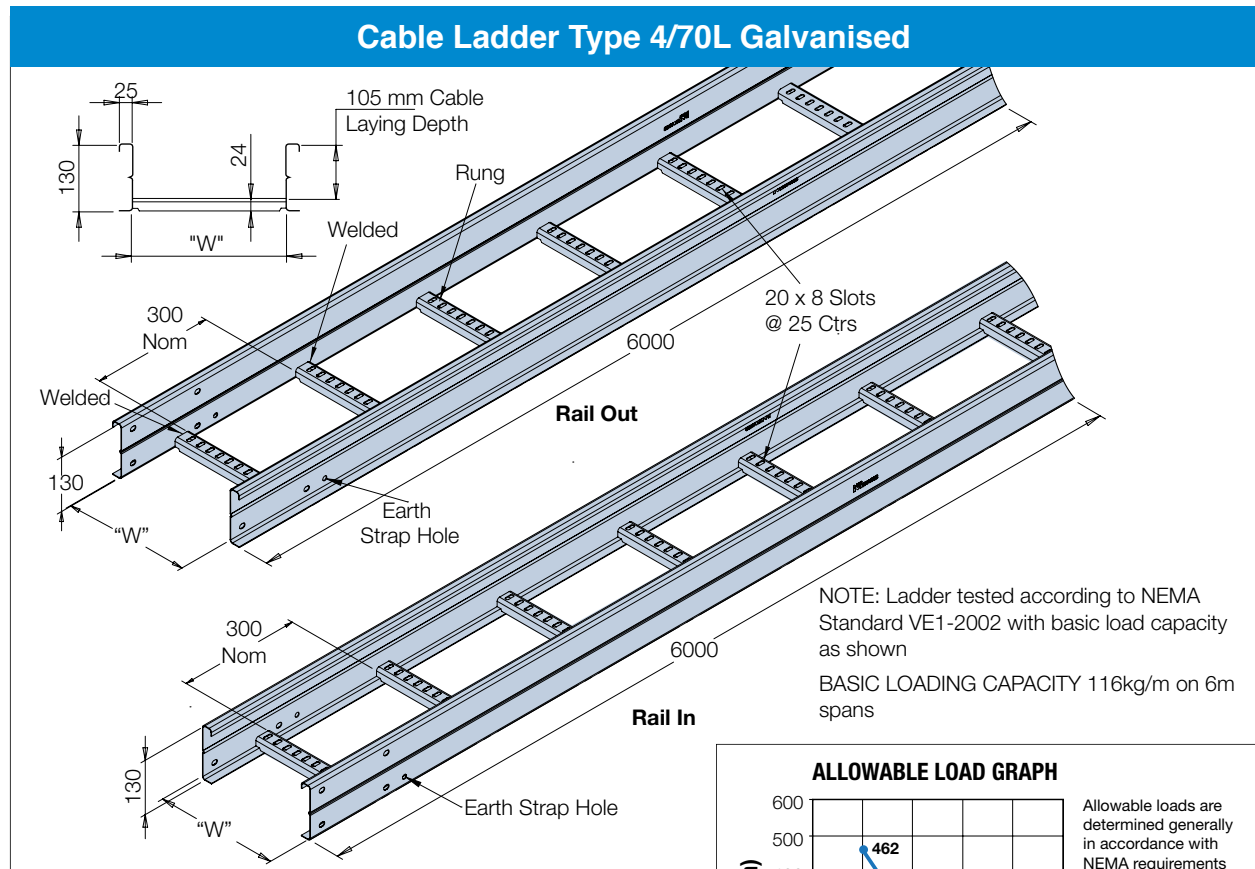
## When Ordering

Range	Type	Wide	Material	Fastenings	Rail Direction	Radius	Finish
<b>3C</b> 3C = 3/50 100 mm High Side 1.6 mm thk	<b>T</b> T = Tee Equal (see Ordering note)	15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm 75 = 750 mm 90 = 900 mm	H = Mild Steel Hot Dip Galv S = 316 Stainless Steel A = Aluminium	<b>K</b> K = Includes all required Bolts and Nuts	<b>RI or RO</b> RI = Rail In RO = Rail Out (see Rail In note)	<b>3</b> 3 = 300 mm 4 = 450 mm 6 = 600 mm	<b>PC-COL</b> PC-COL= paint Painted finish to Kounis standard colour range
<p>NOTE: Rail In Ladder (RI) is a Kounis standard and will not show in a supply code. All Rail Out ladder will have a RO suffix shown in all supply codes.</p> <p>ORDERING EXAMPLE SHOWN: 3/50 Cable Ladder Equal Tee 150 mm wide HDG 300 mm Radius c/w Bolts and Nuts. Painted Finish to specification colour.</p> <p>NOTE: Unequal Tee option made to order (eg:W1-15 x W2-30 x W3-15) code for alternative 153015.</p>							

E.&O.E.

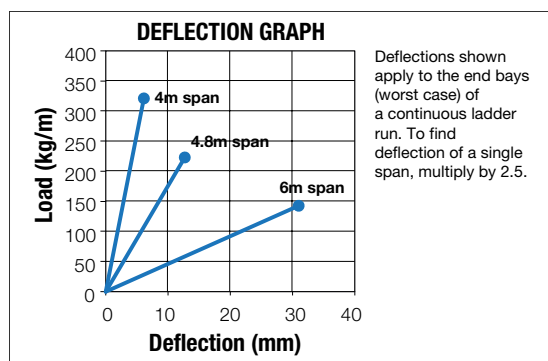
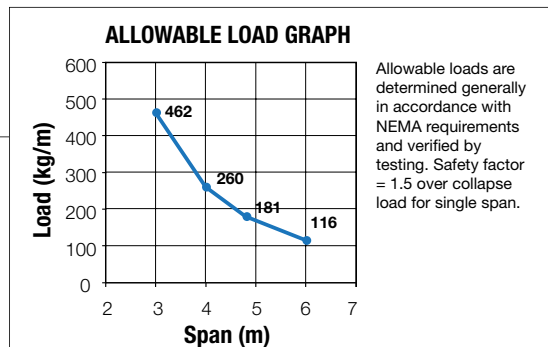
# Cable Ladder Heavy Duty Type 4/70L 20B

## 1.6 mm Steel Galvanised



### Specification

<b>Class Designation:</b>	Cable ladder Heavy Duty type 4/70L
<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. Hold down clamps.



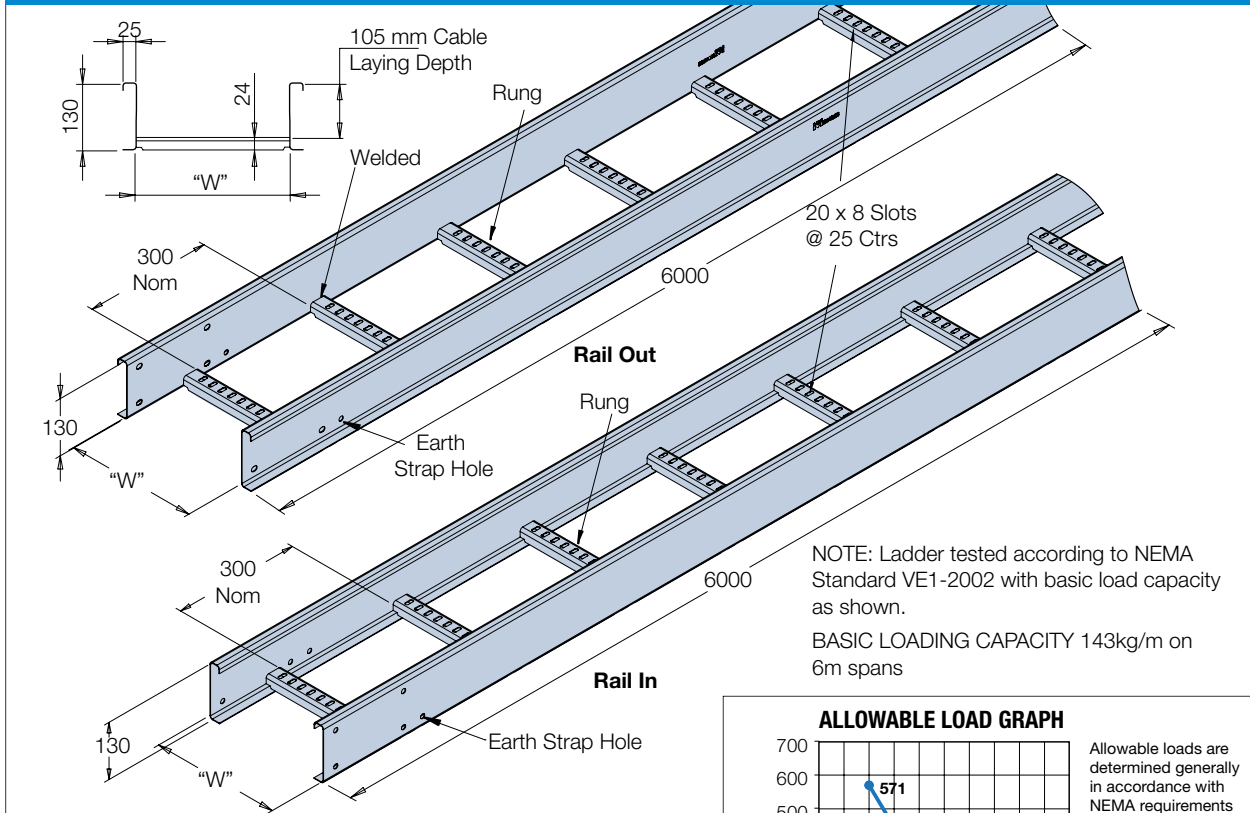
### When Ordering

Range	Type	Wide	Std.Finish	Fastenings	Rail Direction	Finish
4CL = 4/70L 130 mm High Side 1.6 mm Gauge	L = Straight 6 metre Length	15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm 75 = 750 mm 90 = 900 mm	H = Hot Dip Galv	K = includes all required Splice plates with Bolts and Nuts	RI or RO RI = Rail In RO = Rail Out (see Rail In note)	PC-COL PC-COL = paint Painted finish to Kounis standard colour range
NOTE: Rail In Ladder (RI) is a Kounis standard and will not show in a supply code. All Rail Out ladder will have a RO suffix shown in all supply codes.		ORDERING EXAMPLE SHOWN: 4/70L Cable Ladder 150 mm wide x 6 metre HDG c/w Splice Plates Bolts and Nuts. Painted Finish to specification colour.				

E.&O.E.

# Cable Ladder Heavy to Extra Heavy Duty Type 4/70 20B 2.0 mm Steel Galvanised

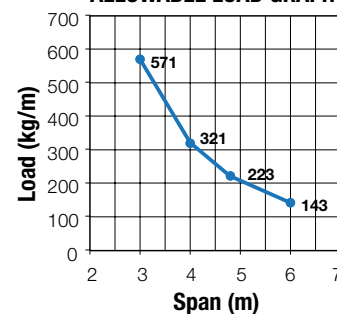
## Cable Ladder Type 4/70 Galvanised



## Specification

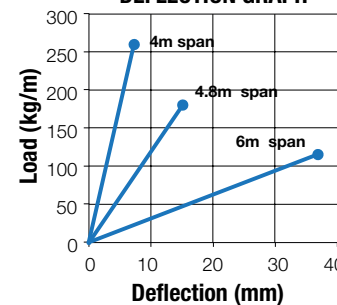
<b>Class Designation:</b>	Cable ladder heavy to extra heavy duty type 4/70
<b>Material:</b>	Steel sheet.
<b>Finish:</b>	Hot dipped galvanised after fabrication. AS/NZS 4680 i.e. 390 gm/m <sup>2</sup> zinc, approx. 55 µm.
<b>Rung Spacing:</b>	300 mm spacings with slotted rungs standard.
<b>Inside Depth:</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. 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.

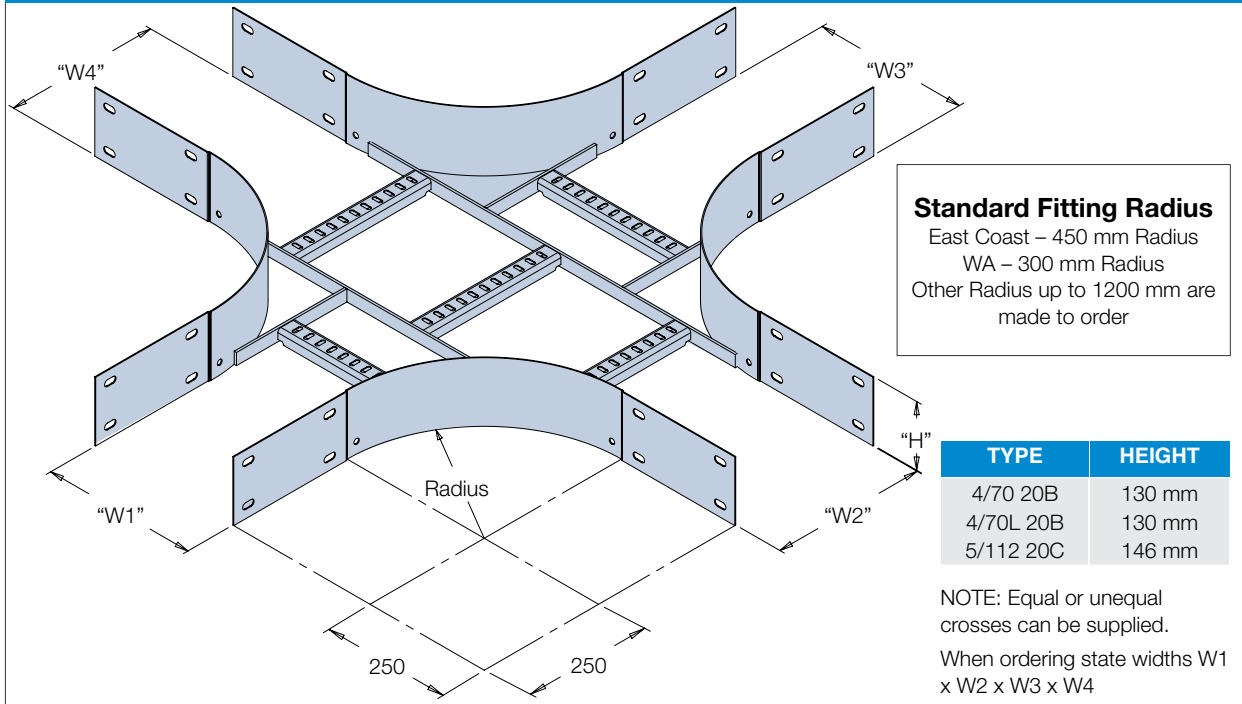
## When Ordering

Range	Type	Wide	Std.Finish	Fastenings	Rail Direction	Finish
<b>4C</b> 4C = 4/70 130 mm High Side 2.0 mm Gauge	<b>L</b> L = Straight 6 metre 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	<b>K</b> K = includes all required Splice plates with Bolts and Nuts	<b>RI or RO</b> RI = Rail In RO = Rail Out (see Rail In note)	<b>PC-COL</b> PC-COL = paint Painted finish to Kounis standard colour range
NOTE: Rail In Ladder (RI) is a Kounis standard and will not show in a supply code. All Rail Out ladder will have a RO suffix shown in all supply codes.						
ORDERING EXAMPLE SHOWN: 4/70 Cable Ladder 150 mm wide x 6 metre HDG c/w Splice Plates Bolts and Nuts. Painted Finish to specification colour.						

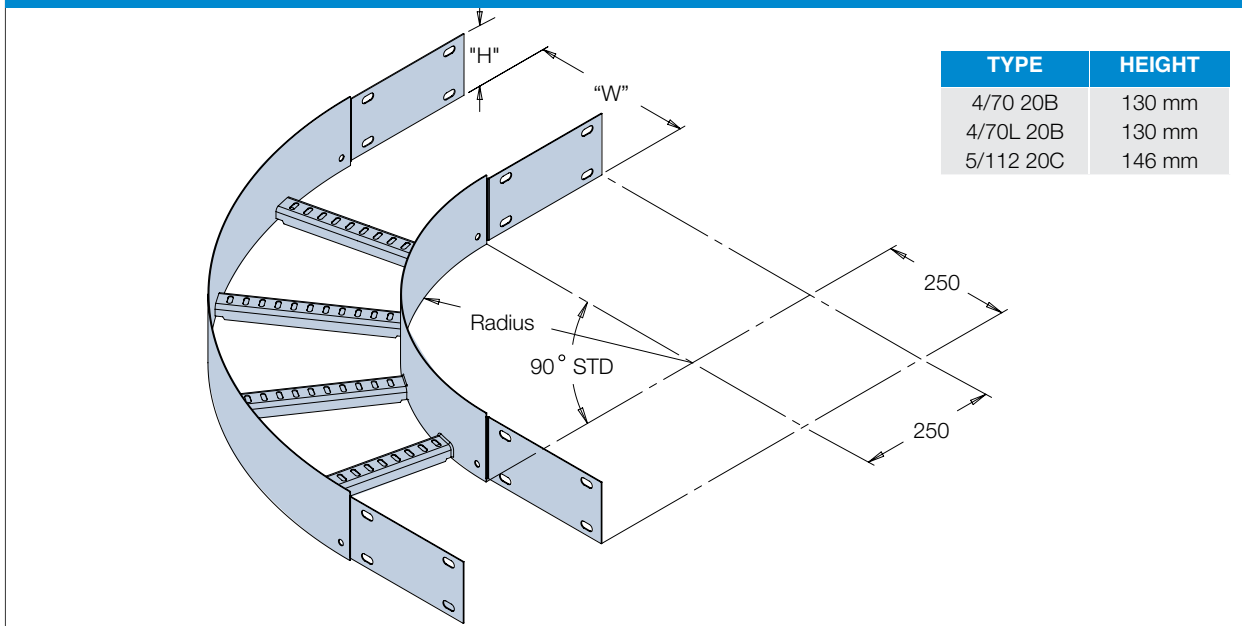
E.&O.E.

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

### Cross 4/70L, 4/70 & 5/112



### Bend 4/70L, 4/70 & 5/112



### When Ordering

Range	Type	Wide	Material	Fastenings	Rail Direction	Radius	Finish
<b>4C</b> 4C = 4/70 130 mm High 2.0 mm thk. 5C = 5/112 146 mm High 2.0 mm thk. 4C = 4/70L 130 mm High 1.6 mm thk	<b>B</b> B = Bend 90° C = Cross Equal 4/70 & 5/112 BL= Bend 90° CL = Cross Equal 4/70L and stainless (see Ordering note)	<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 = Mild Steel Hot Dip Galv S = 316 Stainless Steel A = Aluminium	<b>K</b> K = Includes all required Bolts and Nuts	<b>RI or RO</b> RI = Rail In RO = Rail Out (see Rail In note)	<b>3</b> 3 = 300 mm 4 = 450 mm 6 = 600 mm	<b>PC-COL</b> PC-COL= paint Painted finish to Kounis standard colour range
NOTE: Rail In Ladder (RI) is a Kounis standard and will not show in a supply code. All Rail Out ladder will have a RO suffix shown in all supply codes.			ORDERING EXAMPLE SHOWN: 4/70 Cable Ladder 90° Bend 150 mm wide HDG 300 mm Radius c/w Bolts and Nuts. Painted Finish to specification colour. Note: 45, 30 & 60° option shown after size (e.g.: 1545) code for alternative 150mm 45° Riser.				

E.&O.E.

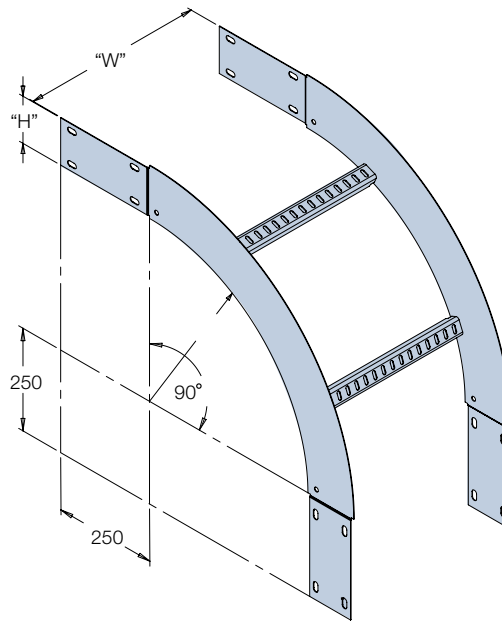


# Cable Ladder 4/70L, 4/70 and 5/112 Fittings

## External Riser 4/70L, 4/70 & 5/112

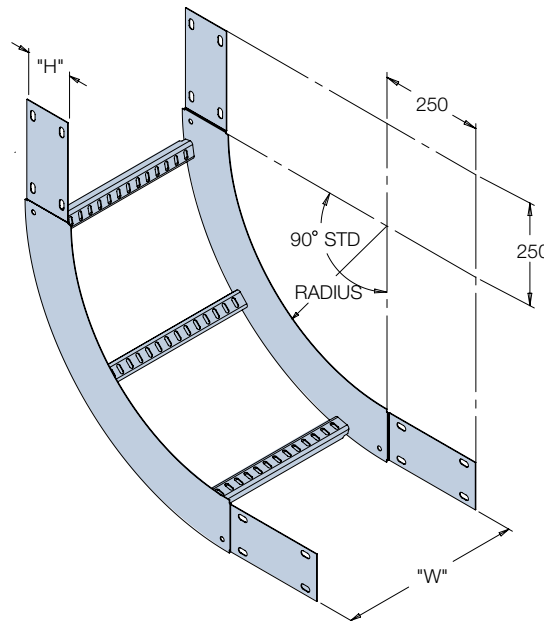
### Standard Fitting Radius

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
4/70L 20B	130 mm
5/112 20C	146 mm

## Internal Riser 4/70L, 4/70 & 5/112



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

## When Ordering

Range	Type	Wide	Material	Fastenings	Rail Direction	Radius	Finish
<b>4C</b>	<b>RI</b>	<b>15</b>	<b>H</b>	<b>K</b>	<b>RI &amp; RO</b>	<b>3</b>	<b>PC-COL</b>
4C = 4/70 130 mm High 2.0 mm thk.	RI = Internal Riser 90° RX=External Riser 90°	15 = 150 mm 30 = 300 mm 45 = 450 mm 60 = 600 mm 75 = 750 mm 90 = 900 mm	H = Mild Steel Hot Dip Galv S = 316 Stainless Steel A = Aluminium	K = Includes all required Bolts and Nuts	RI = Rail In RO = Rail Out (see Rail In note)	3 = 300 mm 4 = 450 mm 6 = 600 mm	PC-COL= paint Painted finish to Kounis standard colour range
5C = 5/112 146 mm High 2.0 mm thk.	4/70 & 5/112 RIL = Internal Riser 90° RXL = External Riser 90°						
4C = 4/70L 130 mm High 1.6 mm thk	470L and stainless (see Ordering note)						
NOTE: Rail In Ladder (RI) is a Kounis standard and will not show in a supply code. All Rail Out ladder will have a RO suffix shown in all supply codes.		ORDERING EXAMPLE SHOWN: 4/70 Cable Ladder 90° Internal Riser 150 mm wide HDG 300 mm Radius c/w Bolts and Nuts. Painted Finish to specification colour. Note: 45, 30 & 60° option shown after size (e.g.: 1545) code for alternative 150mm 45° Riser.					

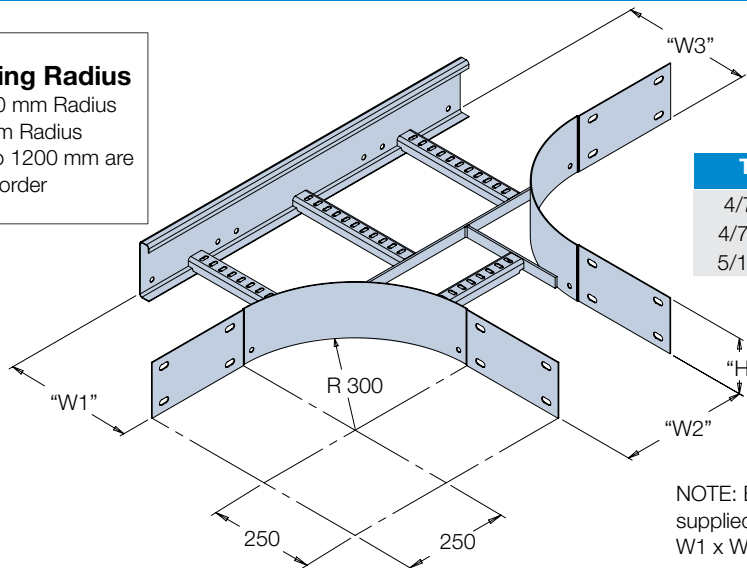
E.&O.E.

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

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

### Standard Fitting Radius

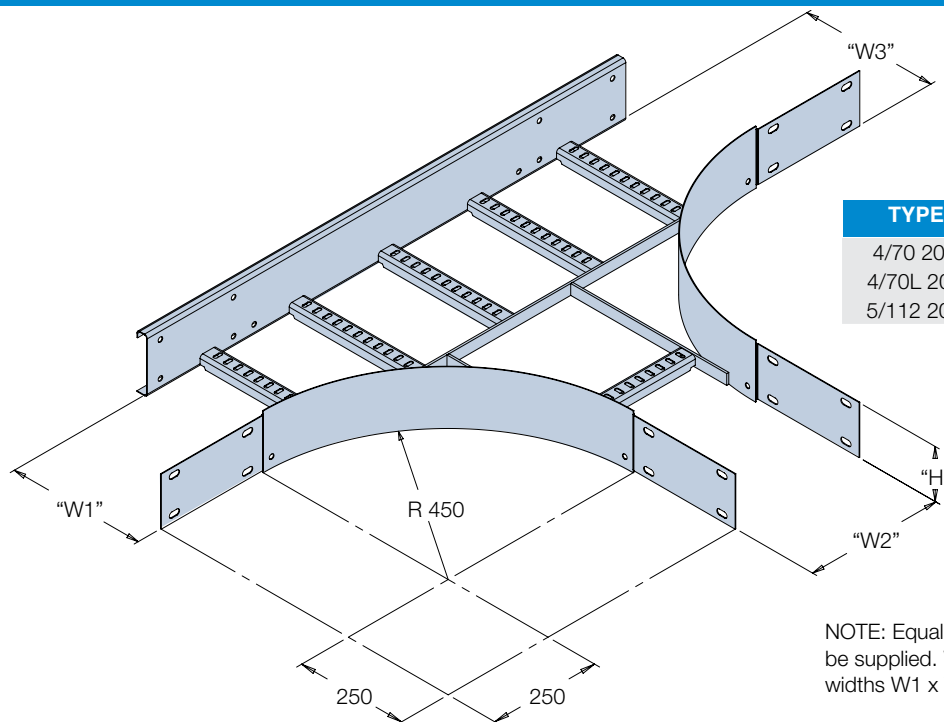
East Coast – 450 mm Radius  
WA – 300 mm Radius  
Other Radius up to 1200 mm are made to order



TYPE	HEIGHT
4/70 20B	130 mm
4/70L 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 4/70L, 4/70 & 5/112 Tee



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

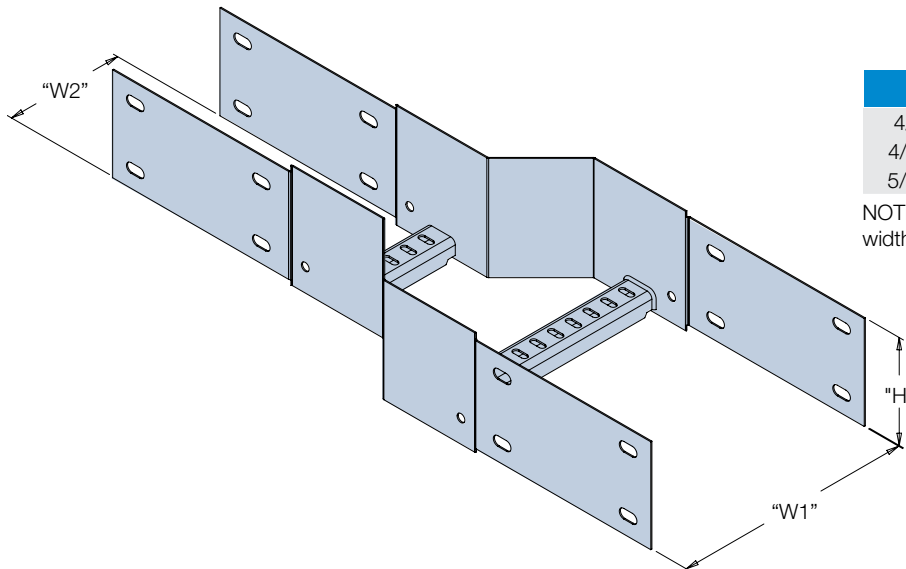
## When Ordering

Range	Type	Wide	Material	Fastenings	Rail Direction	Radius	Finish
<b>4C</b> 4C = 4/70 130 mm High 2.0 mm thk. 5C = 5/112 146 mm High 2.0 mm thk. 4C = 4/70L 130 mm High 1.6 mm thk	<b>T</b> T = Tee Equal 4/70 & 5/112 TL = Tee Equal RO 4/70L and stainless (see Ordering note)	<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 = Mild Steel Hot Dip Galv S = 316 Stainless Steel A = Aluminium	<b>K</b> K = Includes all required Bolts and Nuts	<b>RI or RO</b> RI = Rail In RO = Rail Out (see Rail In note)	<b>3</b> 3 = 300 mm 4 = 450 mm 6 = 600 mm	<b>PC-COL</b> PC-COL= paint Painted finish to Kounis standard colour range
NOTE: Rail In Ladder (RI) is a Kounis standard and will not show in a supply code. All Rail Out ladder will have a RO suffix shown in all supply codes.		ORDERING EXAMPLE SHOWN: 4/70 Cable Ladder Equal Tee 150 mm wide HDG 300 mm Radius c/w Bolts and Nuts. Painted Finish to specification colour. NOTE: Unequal Tees made to order (e.g.: W1-15 x W2-30 x W3-15) code for alternative size 153015.					

E.&O.E.

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

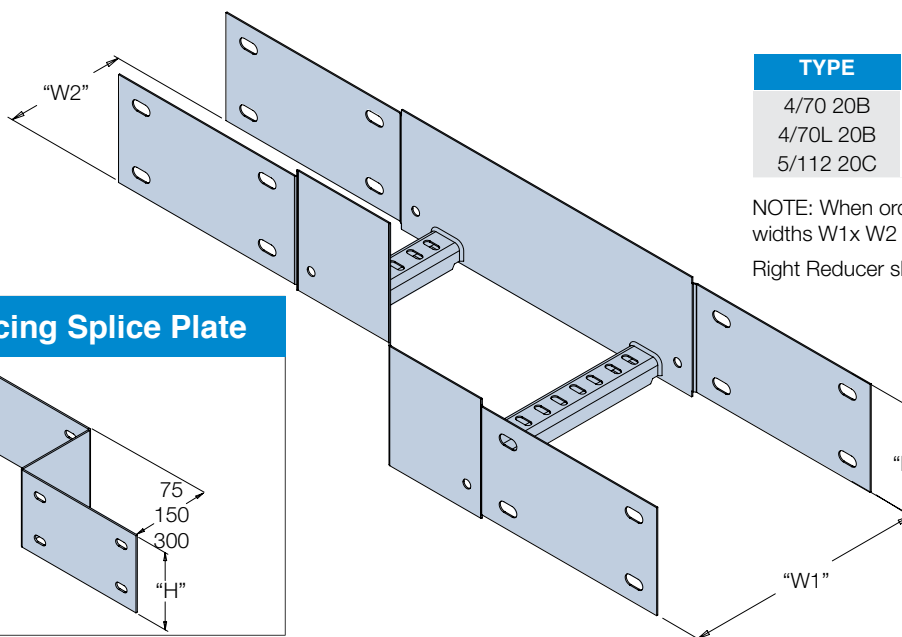
### Straight Reducer 4/70L, 4/70 & 5/112



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

NOTE: When ordering state widths W1 x W2

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

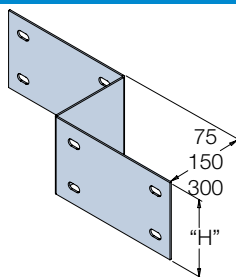


TYPE	HEIGHT
4/70 20B	130 mm
4/70L 20B	130 mm
5/112 20C	146 mm

NOTE: When ordering state widths W1x W2

Right Reducer shown

#### Reducing Splice Plate



### When Ordering

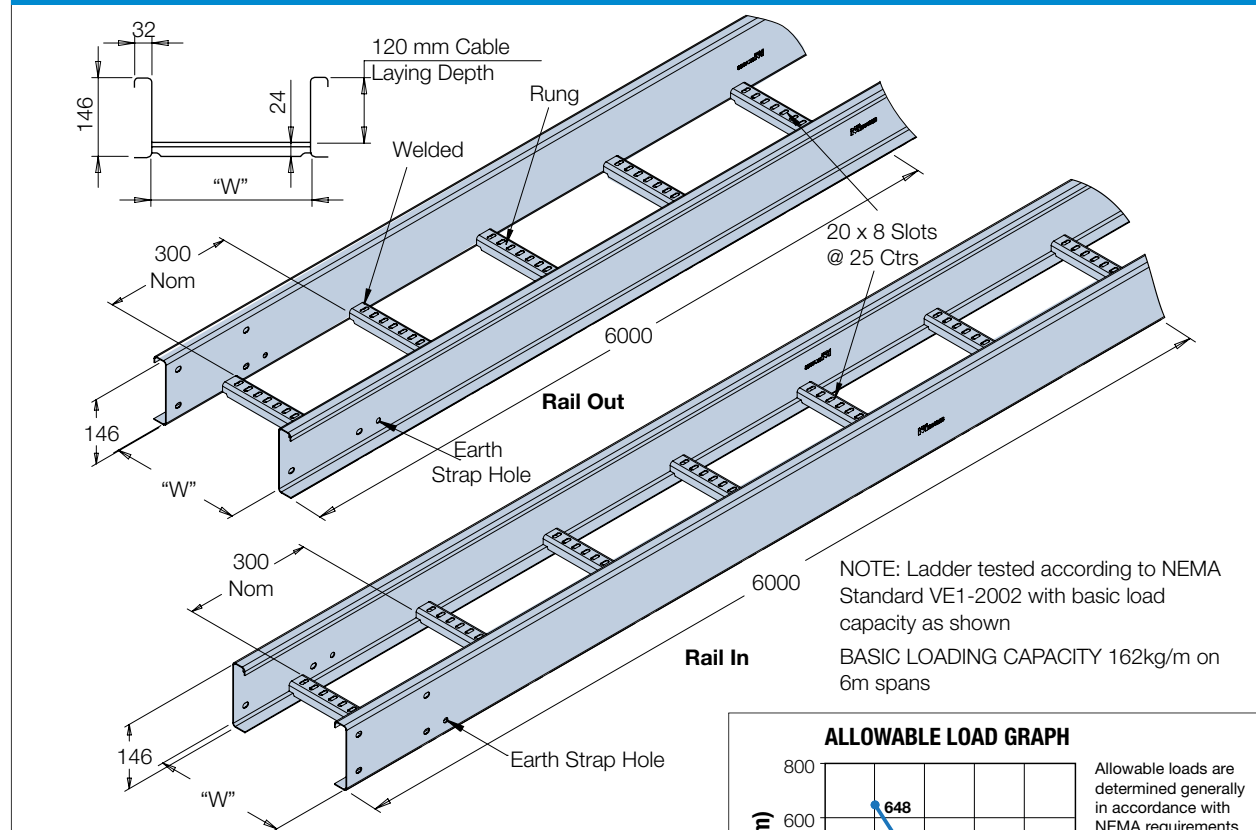
Range	Type	Wide	Material	Fastenings	Rail Direction	Finish
<b>4C</b> 4C = 4/70 130 mm High 2.0 mm thk. 5C = 5/112 146 mm High 2.0 mm thk. 4C = 4/70L 130 mm High 1.6 mm thk	<b>SR</b> SR = Straight Reducer RR = Right Reducer LR = Left Reducer PR = Reducing Splice Plate (75-150-300 mm) <b>470 and 5/112</b> SRL = Straight Reducer RRL = Right Reducer LRL = Left Reducer <b>470L and stainless</b> (see Ordering note)	<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 = Mild Steel Hot Dip Galv Painted finish to S= 316 Stainless Steel A = Aluminium	<b>K</b> K = includes all required Bolts and nuts	<b>RI or RO</b> RI = Rail In RO = Rail Out (See Rail In note)	<b>PC-COL</b> PC-COL = paint Painted finish to Kounis standard colour range
NOTE: Rail In Ladder (RI) is a Kounis standard and will not show in a supply code. All Rail Out ladder will have a RO suffix shown in all supply codes.		ORDERING EXAMPLE SHOWN: 4/70 Cable Ladder Straight Reducer 300 to 150 mm wide HDG c/w Bolts and Nuts. Painted Finish to specification colour.				

E.&O.E.

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

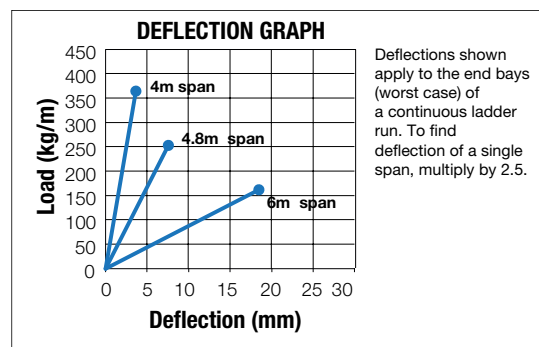
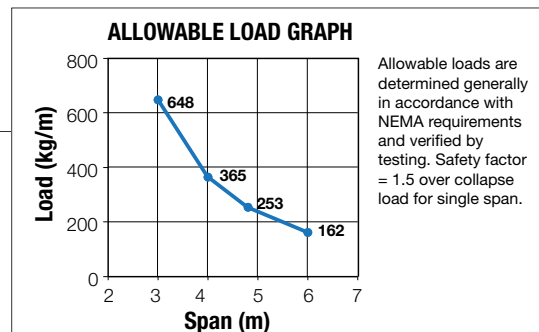
## 2 mm Steel Galvanised

### Cable ladder Type 5/112 Galvanised



### Specification

<b>Class Designation:</b>	Cable ladder extra 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. Hold down clamps.



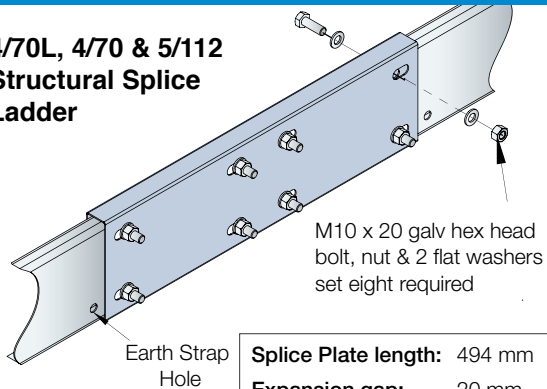
### When Ordering

Range	Type	Wide	Material	Fastenings	Rail Direction	Finish
<b>5C</b> 5C = 5/112 146 mm High Side 2.0 mm Gauge	<b>L</b> L = Straight 6 metre 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	<b>K</b> K = Includes all required Splice plates with Bolts and nuts	<b>RI or RO</b> RI = Rail In RO = Rail Out (See Rail In note)	<b>PC-COL</b> PC-COL = paint Painted finish to Kounis standard colour range
NOTE: Rail In Ladder (RI) is a Kounis standard and will not show in a supply code. All Rail Out ladder will have a RO suffix shown in all supply codes.		ORDERING EXAMPLE SHOWN: 5/112 Cable Ladder 150 mm wide x 6 metre HDG c/w Splice Plates Bolts and Nuts. Painted Finish to specification colour.				

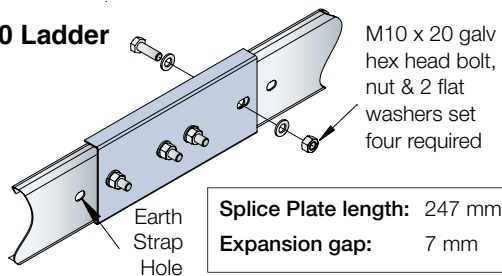
## Cable Ladder Splice Plates

### Rail In Splice Plates

#### 4/70L, 4/70 & 5/112 Structural Splice Ladder

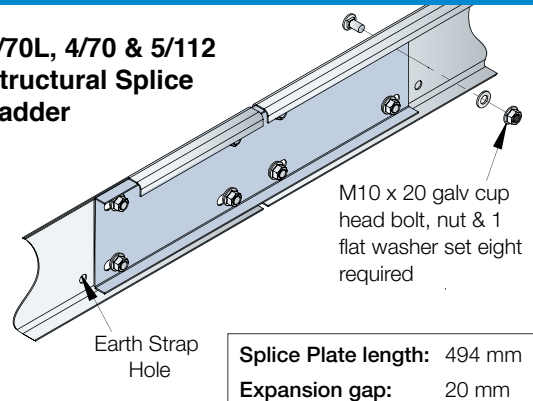


#### 3/50 Ladder

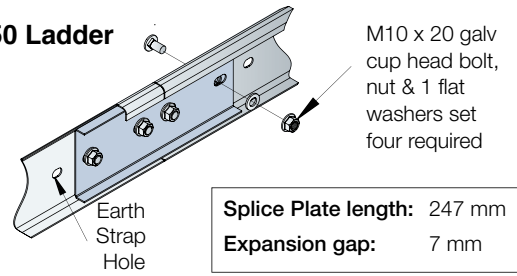


### Rail Out Splice Plates

#### 4/70L, 4/70 & 5/112 Structural Splice Ladder



#### 3/50 Ladder



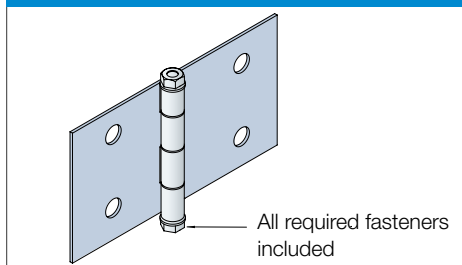
Bolting of straight section cable ladder to be as NEMA-VE2-2006 Cl.4.3 and with the torque settings shown.

Metric Bolts Class 5.8	
Size	N-m
M8 x 1.25	14-16
M10 x 1.5	26-33
M12 x 1.75	45-58

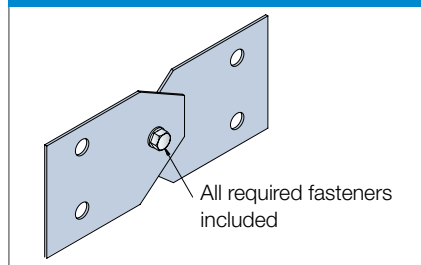
### When Ordering

Range	Type	Material	Fastenings	Rail Direction	Finish
<b>3C</b>	<b>LP</b>	<b>H</b>	<b>K</b>	<b>RI or RO</b>	<b>PC-COL</b>
2C = 2/30 65 mm High Side 3C = 3/50 100 mm High Side 4C = 4/70 130 mm High Side 4CL = 4/70L 130 mm High x 1.6mm 5C = 5/112 146 mm High Side	LP = Straight Splice Plate	H = Mild Steel Hot Dip Galv S = 316 Stainless Steel A = Aluminium	K = includes all required Bolts and nuts	RI = Rail In RO = Rail Out See Rail In note	PC-COL = paint Painted finish to Kounis standard colour range
NOTE: Rail In Ladder (RI) is a Kounis standard and will not show in a supply code. All Rail Out ladder will have a RO suffix shown in all supply codes except 2/30 ladder.					
ORDERING EXAMPLE SHOWN: Ladder Splice Plate 3/50 HDG c/w Bolts and Nuts. Painted Finish to specification colour					

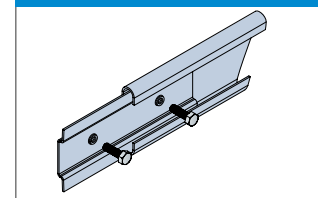
### Horizontal Hinge Splice Plate



### Verticle Hinge Splice Plate



### 2/30 Splice Plate



### When Ordering

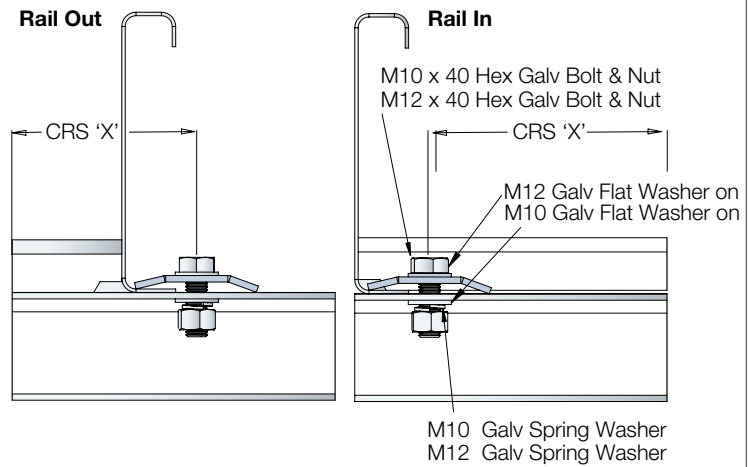
Range	Type	Material	Fastenings	Finish
<b>2C</b>	<b>HP</b>	<b>H</b>	<b>K</b>	<b>PC-COL</b>
2C = 2/30 65 mm High Side 3C = 3/50 100 mm High Side 4-5C = 4/70 130 mm High Side and 5/112 146 mm High Side	HP = Horizontal Hinge Splice Plate VP = Vertical Hinge Splice Plate	H = Mild Steel Hot Dip Galv S = 316 Stainless Steel A = Aluminium	K = includes all required Bolts and nuts	PC-COL = paint Painted finish to Kounis standard colour

E.&O.E.

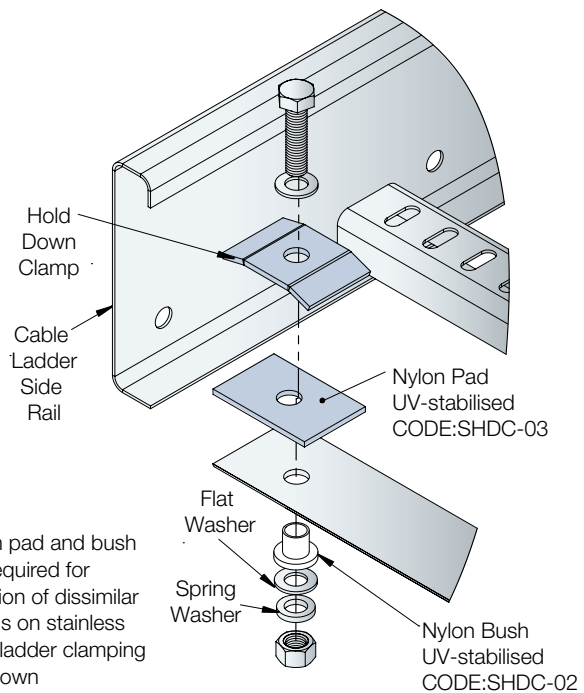
# Cable Ladder Hold Down Clamps

## Cable Ladder Hold Down Clamp Assembly

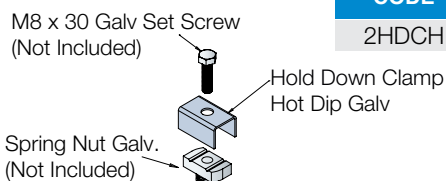
RAIL OUT	CYCLONIC	STANDARD	
WIDTH	CRS 'X'	CRS 'X'	
150 mm	224 mm	210 mm	RAIL OUT 3/50
300 mm	374 mm	360 mm	
450 mm	524 mm	510 mm	
600 mm	674 mm	660 mm	
150 mm	224 mm	214 mm	RAIL OUT 4/70
300 mm	374 mm	364 mm	
450 mm	524 mm	514 mm	
600 mm	674 mm	664 mm	
150 mm	230 mm	230 mm	RAIL OUT 5/112
300 mm	380 mm	380 mm	
450 mm	530 mm	530 mm	
600 mm	680 mm	680 mm	
RAIL IN	CYCLONIC	STANDARD	
WIDTH	CRS 'X'	CRS 'X'	
150mm	76mm	90mm	RAIL IN 3/50
300mm	226mm	240mm	
450mm	376mm	390mm	
600mm	526mm	540mm	
150mm	76mm	86mm	RAIL IN 4/70
300mm	226mm	236mm	
450mm	376mm	386mm	
600mm	526mm	536mm	
150mm	70mm	70mm	RAIL IN 5/112
300mm	220mm	220mm	
450mm	370mm	370mm	
600mm	520mm	520mm	



## Stainless Steel Cable Ladder Hold Down Assembly



## 2/30 Hold Down Clamp Assembly



### CODE

2HDCH

## When Ordering

Range	Type	Finish
<b>HDC</b>	<b>S</b>	<b>H</b>
HDC = Square Hold Down Clamp	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	H = Hot Dip Galv S = 316 Stainless Steel

ORDERING EXAMPLE SHOWN: Hold Down Clamp Standard 3 mm thick, 11 mm 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.

E.&O.E.



# Cable Ladder Barrier Strip & Earth Strap

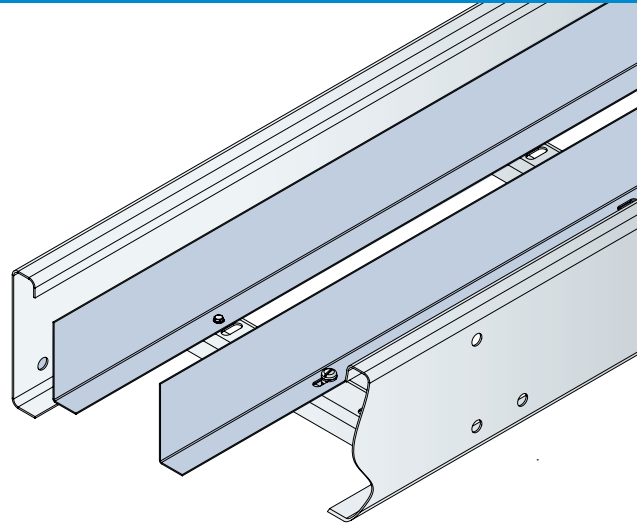
## Barrier Strip – Length 3 m

### 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). Supplied with plain type flange for tek screw fixing or alternatively can be slotted for bolts and nuts (hardware sold separately).

### Barrier Fixings Sold Separately

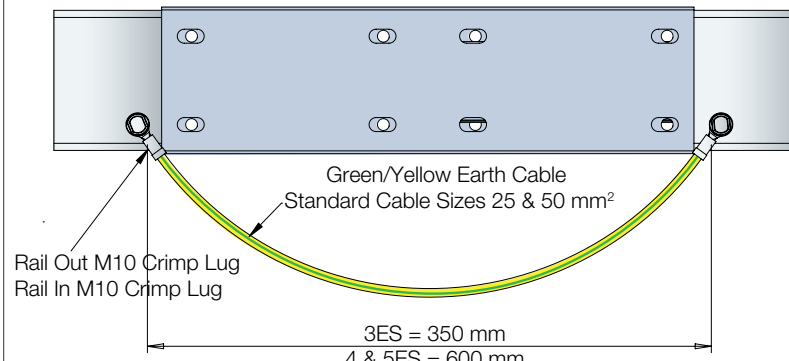
CODE	BARRIER FIXINGS 3 REQUIRED PER BARRIER
CSKH	Tek Galv – Tek Screw Hex 12-14 x 20 HDG
CSKS	Tek SS – Tek Screw Hex 12-14 x 20 SS
PHS0620H	Bolt Galv – Pan Head Screw M6 x 20 HDG
PHS0620S	Bolt SS – Pan Head Screw M6 x 20 SS
K3016H	Nut Galv – Channel Butterfly Nut M6 HDG
K3016S	Nut SS – Channel Butterfly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



## When Ordering

Range	Type	Material	Finish	Fastenings
<b>4-5C</b> 2C = 2/30 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 steel (N/A in Hot Dip Galv) M = 1.0 mm Thick Steel H = 1.6 mm Thick Steel	<b>G</b> G = Galvabond H = Hot Dip Galvanised S = Stainless Steel A = Aluminium	<b>K</b> K = Includes all required fixing screws and nuts

ORDERING EXAMPLE SHOWN: 4/70 Barrier Slotted Flange Light Duty Galvabond complete with fastenings.

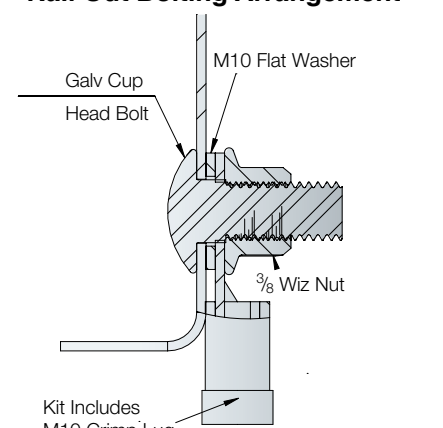


Green/Yellow Earth Cable  
Standard Cable Sizes 25 & 50 mm<sup>2</sup>

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  
M10 Flat Washer  
3/8 Wizz Nut  
Kit Includes M10 Crimp Lug

### EARTH STRAP KIT CODE

GALV	S/STEEL	GALV	S/STEEL	Fastenings – Rail In		Fastenings – Rail Out Galv		
CODE RAIL IN	CODE RAIL IN	CODE RAIL OUT	CODE RAIL OUT	CODE	Description Galv	CODE	Description Galv	QTY
3ESHK	3ESSK	3ESHROK	3ESSROK	HHS1025H	M10 x 25 Hex Galv Screw	CHB3818S	3/8 x 3/4 CupHd Galv Screw	2EA
4-5ESHK	4-5ESSK	4-5ESHROK	4-5ESSROK	HN10H	M10 Hex Galv Nut	HN10S	3/8 Galv Whizz Nut	2EA
4-5ESHK	4-5ESSK	4-5ESHROK	4-5ESSROK	FW10H	M10 Galv Flat Washer	FW10S	M10 Galv Flat Washer	2EA
				SW10H	M10 Galv Spring Washer	N/A	M10 Galv Spring Washer	2EA
NOTE: Kit comprises earth strap and fastenings as shown. Specify cable size in ordering code i.e. 4-5ES 50 HROK (50 mm <sup>2</sup> size). Kounis can supply 16, 25, 35, 50, 70 and 120 mm <sup>2</sup> earth straps.				<b>CODE</b>	<b>Description S/Steel</b>	<b>CODE</b>	<b>Description S/Steel</b>	<b>QTY</b>
				HHS1025S	M10 x 25 Hex SSteel Screw	HHS1025S	M10 x 25 Hex SSteel Screw	2EA
				HN10S	M10 Hex SSteel Nut	HN10S	M10 Hex SSteel Nut	2EA
				FW10S	M10 SSteel Flat Washer	FW10S	M10 SSteel Flat Washer	2EA
				SW10S	M10 SSteel Spring Washer	SW10S	M10 SSteel Spring Washer	2EA

E.&O.E.