VANTRUNK

VANTRUNK CABLE-TRAY

THE FASTEST CABLE TRAY SYSTEM

A FULL RANGE OF PERFORATED CABLE TRAY PRODUCTS MANUFACTURED TO THE HIGHEST STANDARDS, OFFERING TIME SAVING AND ADAPTABLE DESIGNS, PRACTICAL SLOT PATTERNS AND VERSATILE ACCESSORIES.

Flexible Solutions

Rapid Installation Systems

Withstands extreme temperatures (-50˚ to +50˚C)

CODE SYSTEM EXPLAINED

The information given on these pages should be used as a guide when ordering cable tray, fittings, covers and accessories. For more detailed information and examples refer to the relevant page within the catalogue.

Straight Cable Tray

System Type	Tray Type	Width	Finish & Material
eg. HR	SL3	50	GA

Cable Tray Fittings (Include the Radius detail if a non-standard radius fitting is required)

System Type	Fitting Type	Width(s)	Radius	Finish & Material
eg. HR	FE60	50	Omit the radius detail if the standard radius fitting is required	GA

Cable Tray Accessories

System Type	Accessory Type	Length	Finish & Material
eg. HR	DIV	150	GA

Straight Cable Tray Covers

System Type	Cover Type	Tray Type	Width	Finish & Material
eg. HR	CC	SL3	50	GA

Cable Tray Fitting Covers (Include the Radius detail if a non-standard radius fitting is required)

System Type	Cover Type	Fitting Type	Width(s)	Radius	Finish & Material
eg. HR	CC	FE60	50	Omit the radius detail if the standard radius fitting is required	GA

Couplers

System Type	Coupler Type	Finish & Material
eg. HR	SC	GA

Finishes and Materials (●)

Details on the full range of standard Finishes and Materials are given in the Finish and Materials section (page 26) and Technical Section (page 246).

HOT DIPPED GALVANIZED VANTRUNK MILD STEEL

HOT DIPPED GALVANIZED VANTRUNK SILICON RICH STRUCTURAL STEEL

DEEP GALVANIZED VANTRUNK SILICON RICH STRUCTURAL STEEL

MARINE GRADE STAINLESS STEEL

02

Tray Type		Page
MR	Medium duty return flange cable tray	115
HR	Heavy duty return flange cable tray	115

For HR cable tray with side wall heights other than 50mm, suffix the standard HR part number with the required side wall height in mm (30mm to 150mm in 5mm increments).

Straight Tray Type		Page
SL3	Straight tray length, 3m.	115

Tray Fitting Type		Page
FE90	Flat elbow 90°	118
FE60	Flat elbow 60°	118
FE45	Flat elbow 45°	117
FE30	Flat elbow 30°	117
IR	Inside (internal) riser (add 30°, 45°, 60° and 90° as required)	121
OR	Outside (external) riser (add 30°, 45°, 60° and 90° as required)	121
VR	Variable riser	121
ET	Equal tee	123
UT	Unequal tee (quote main width Wm & branch width Wb)	124
EC	Equal cross	127
RS	Straight Reducer (quote primary width Wp & secondary width Ws)	129
RL	Reducer left (quote primary width Wp & secondary width Ws)	130
RR	Reducer right (quote primary width Wp & secondary width Ws)	131

Width

50:	50mm	300:	300mm
75:	75mm	450:	450mm
100:	100mm	600:	600mm
150:	150mm	750:	750mm
225:	225mm	900:	900mm

Cover Type		Page
CC	Closed cover (plain close-fitting cover)	146
CV	Ventilated cover (plain raised cover)	146
CL	Louvered cover (louvered close-fitting cover)	146

Radius

The radius is not required for the standard cable tray fitting and cover. The following radii are available to order only.

150: 150mm*
300: 300mm
450: 450mm
600: 600mm

*Only available for the standard fitting with a 75mm radius.

Coupler Type	Page
SC Straight coupler (wrap-over type)	133
AC Adjustable coupler (wrap-over type)	134
FP Fish Plate Coupler (add width & omit cable tray type)	135

Accessory Type		Page
HDB	Hold down bracket	137
TR/TOP	Conduit take-off plate (add size 20=20mm or 25=25mm)	140
DIV/SL3	Straight tray divider	141
DIV/FLo.6	Tray fitting divider	141
DIV/VR	Tray riser divider	142
EP	End plate	140
EBS/05	Earth bonding strap	137

Omit cable tray type & width details as necessary.

Further Guidance

Please contact our Sales Team for further advice and guidance on the correct ordering details for the full range of Vantrunk cable tray, fittings and accessories.

Code Sample: Choose finish

HOW TO ORDER

HR / **FE30** / **50** / **GA**

System Type / Fitting Type / Width / Finish

VANTRUNK CABLE-TRAY

STRAIGHT LENGTHS

The Vantrunk Cable Tray System is manufactured in two profiles as standard based around two different side wall heights, each of which gives the cable tray its specific load carrying capabilities.

Medium Duty Return Flange
Cable tray system has a side wall height of 25mm.

Heavy Duty Return Flange
Cable tray system has a side wall height of 50mm as standard.

Other sidewall heights from 30mm to 150mm are available to order – consult our Sales Team for details.

For further details on sidewall heights refer to the 'Cable Tray Technical Data' section (page 246) within this catalogue.

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CE

HOW TO ORDER

MR / SL3 / 50 / GA

System Type | Tray Type | Width | Finish

STRAIGHT TRAY

Vantrunk cable tray is available in widths from 50mm, to 900mm. The width is measured internally between the side walls.

Vantrunk straight cable tray is available in standard lengths of 3m.

The Vantrunk Cable Tray features a slot pattern which is standard across the range of cable trays. Based on a repeating pattern of 12mm by 8mm width wise slots and 20mm by 8mm length wise, the Vantrunk Cable Tray slot pattern suits cable ties, banding and cable cleats with M6 fixings. See the Cable Tray Technical Section for details

Vantrunk Medium Duty return flange cable tray is suitable for applications where medium duty cable loads are to be supported over short to medium spans.

Vantrunk Heavy Duty return flange cable tray is suitable for applications where heavy duty cable loads are to be supported over longer spans.

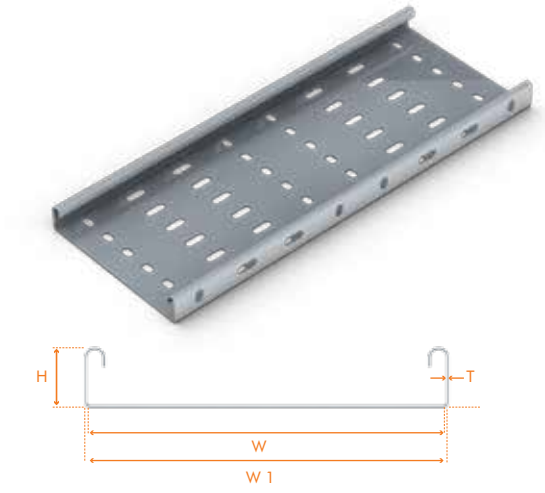
Medium Duty Return Flange Straight Tray

Ref. MR/SL3

Gauge & weights are given for the hot dip galvanized mild steel cable tray. Refer to 'Technical Data' for other materials and gauges.

Part Number	Tray Width mm	W mm	W1 mm	H mm	T mm	Weight (kg)
MR/SL3/50/○	50	50	51.8	25	0.9	2.48
MR/SL3/75/○	75	75	76.8			3.00
MR/SL3/100/○	100	100	101.8			3.52
MR/SL3/150/○	150	150	151.8			4.56
MR/SL3/200/○	200	200	201.8			5.60
MR/SL3/225/○	225	225	226.8			6.12
MR/SL3/300/○	300	300	302.4		1.2	10.24

○= Select a Finish & Material



Finishes & Materials: GA SS GX GK

Supplied with: x0

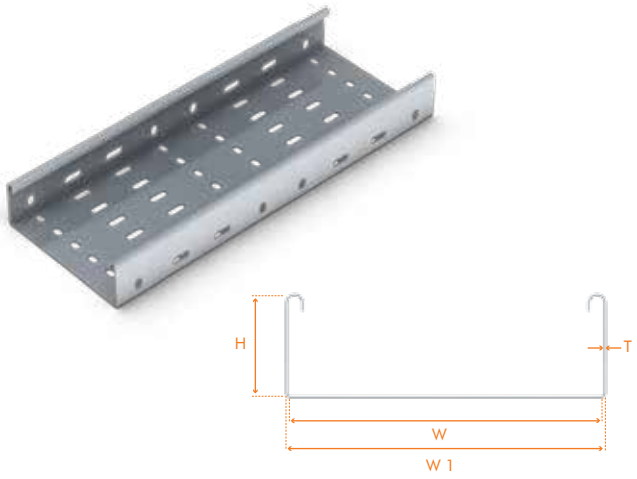
Heavy Duty Return Flange Straight Tray

Ref. HR/SL3

Gauge & weights are given for the hot dip galvanized mild steel cable tray, with a standard side wall height of 50mm. Refer to 'Cable Tray Technical Data' for other materials and gauges.

Part Number	Tray Width mm	W mm	W1 mm	H mm	T mm	Weight kg
HR/SL3/50/○	50	50	51.8	50	0.9	3.61
HR/SL3/75/○	75	75	76.8			4.13
HR/SL3/100/○	100	100	101.8			4.65
HR/SL3/150/○	150	150	151.8			5.69
HR/SL3/200/○	200	200	202.4		1.2	8.97
HR/SL3/225/○	225	225	227.4			9.67
HR/SL3/300/○	300	300	302.4			11.74

○= Select a Finish & Material



Finishes & Materials: GA SS GX GK

Supplied with: x0

VANTRUNK CABLE-TRAY

FITTINGS

The Vantrunk cable tray system comprises of a full range of perforated cable tray fittings that provide changes in direction, changes in width and to create intersections between straight runs. Vantrunk cable tray fittings feature an integral coupler.

The range of cable tray fittings includes flat elbows, risers, equal & unequal tees, crosses and reducers. Cable Tray fittings are available in all corresponding widths and Medium Duty and all Heavy Duty sections.

CABLE TRAY FLAT ELBOWS

Flat Elbows are used to create fixed angular changes in direction in the same plane, between horizontal cable tray runs when the cable tray is installed in the horizontal plane and between vertical cable tray runs when the cable tray is installed in the vertical plane.

Vantrunk cable tray flat elbows are available in widths of 50mm to 900mm. The width is measured externally between the side walls to facilitate the use of the integral coupler.

The Vantrunk Medium Duty Return Flange flat elbow has a sidewall height of 25mm. The standard Vantrunk Heavy Duty Return Flange flat elbow has a sidewall height of 50mm. Other heavy duty sidewall heights from 30mm to 150mm are available to order.

Vantrunk cable tray flat elbows are available in fixed angles of 30°, 45°, 60° and 90° as standard.

Vantrunk return flange cable tray flat elbows have a nominal internal radius of 75mm for widths up to and including 150mm and a nominal internal radius of 150mm for widths of 200mm and above. Other radii are available to order.

Information shown is for Heavy Duty Return Flange flat elbows, data for other sidewall heights available on request.

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VANTRUNK RIS

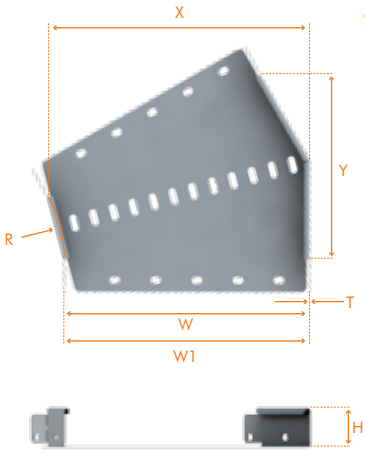
HOW TO ORDER

HR / FE30 / 50 / GA

System Type / Fitting Type / Width / Finish

Heavy Duty Return Flange 30° Flat Elbow

Ref. HR/FE30



Part Number	Fitting Width mm	W mm	W1 mm	T mm	R mm	X mm	Y mm	Weight (kg)
HR/FE30/50/○	50	48.2	50	0.9	75	60	53	0.12
HR/FE30/75/○	75	73.2	75			85	75	0.16
HR/FE30/100/○	100	98.2	100			110	88	0.20
HR/FE30/150/○	150	148.2	150			160	112	0.28
HR/FE30/200/○	200	197.6	200	1.2	150	220	175	0.63
HR/FE30/225/○	225	222.6	225			245	188	0.69
HR/FE30/300/○	300	297.6	300			320	225	0.94

○= Select a Finish & Material

Gauge & weights are given for the hot dip galvanized mild steel cable tray, with a standard side wall height of 50mm. Refer to 'Cable Tray Technical Data' for other materials and gauges.

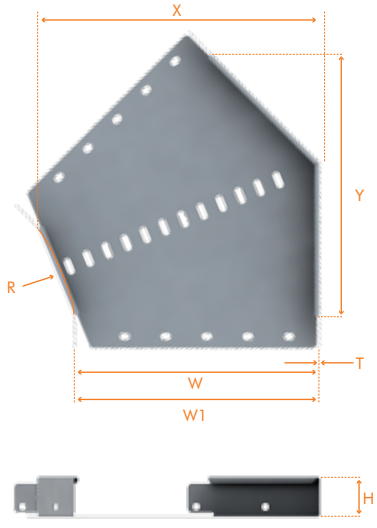
Finishes & Materials: GA SS GX GK

Supplied with: x0

Not Required:

Heavy Duty 45° Flat Elbow

Ref. HR/FE45



Part Number	Fitting Width mm	W mm	W1 mm	T mm	R mm	X mm	Y mm	Weight kg
HR/FE45/50/○	50	48.2	50	0.9	75	72	89	0.16
HR/FE45/75/○	75	73.2	75			97	106	0.20
HR/FE45/100/○	100	98.2	100			122	124	0.25
HR/FE45/150/○	150	148.2	150			172	159	0.35
HR/FE45/200/○	200	197.6	200	1.2	150	224	248	0.87
HR/FE45/225/○	225	222.6	225			269	265	0.93
HR/FE45/300/○	300	297.6	300			344	318	1.26

○= Select a Finish & Material

Gauge & weights are given for the hot dip galvanized mild steel cable tray, with a standard side wall height of 50mm. Refer to 'Cable Tray Technical Data' for other materials and gauges.

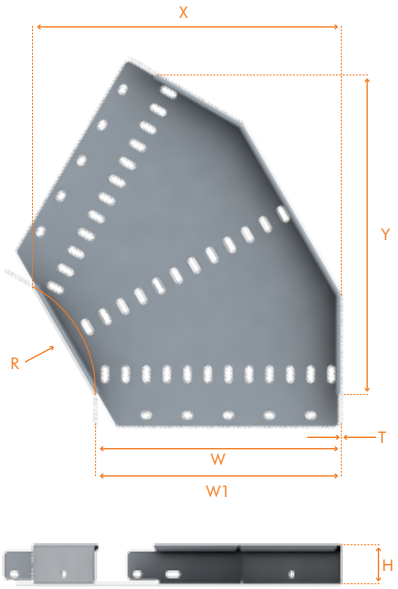
Finishes & Materials: GA SS GX GK

Supplied with: x0

Not Required:

Heavy Duty 60° Flat Elbow

Ref. HR/FE60



Part Number	Fitting Width mm	W mm	W1 mm	T mm	R mm	X mm	Y mm	Weight kg
HR/FE60/50/○	50	48.2	50	0.9	75	60	63	0.12
HR/FE60/75/○	75	73.2	75			85	75	0.16
HR/FE60/100/○	100	98.2	100			110	88	0.20
HR/FE60/150/○	150	148.2	150			160	113	0.28
HR/FE60/200/○	200	197.6	200	1.2	150	275	303	1.05
HR/FE60/225/○	225	222.6	225			245	188	0.69
HR/FE60/300/○	300	297.6	300			320	225	0.94

○= Select a Finish & Material

Gauge & weights are given for the hot dip galvanized mild steel cable tray, with a standard side wall height of 50mm. Refer to 'Cable Tray Technical Data' for other materials and gauges.

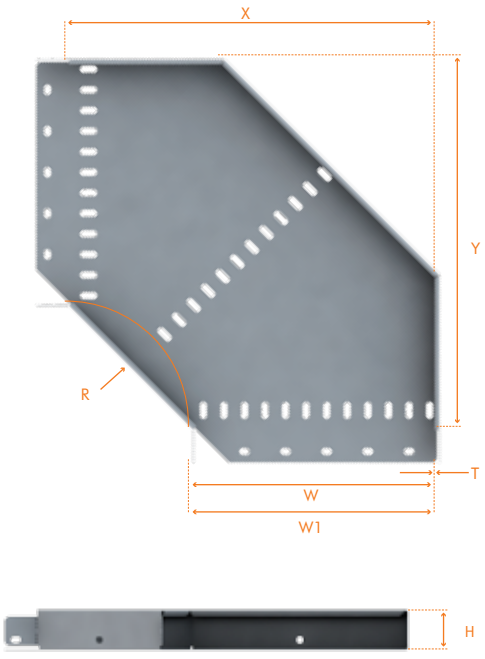
Finishes & Materials: GA SS GX GK

Supplied with: x0

Not Required:

Heavy Duty 90° Flat Elbow

Ref. HR/FE90



Part Number	Fitting Width mm	W mm	W1 mm	T mm	R mm	X mm	Y mm	Weight kg
HR/FE90/50/○	50	48.2	50	0.9	75	125	125	0.26
HR/FE90/75/○	75	73.2	75			150	150	0.35
HR/FE90/100/○	100	98.2	100			175	175	0.44
HR/FE90/150/○	150	148.2	150			225	225	0.62
HR/FE90/200/○	200	197.6	200	1.2	150	350	350	1.57
HR/FE90/225/○	225	222.6	225			375	375	1.75
HR/FE90/300/○	300	297.6	300			450	450	2.39

○= Select a Finish & Material

Gauge & weights are given for the hot dip galvanized mild steel cable tray. With a standard side wall height of 50mm. Refer to 'Cable Tray Technical Data' for other materials and gauges.

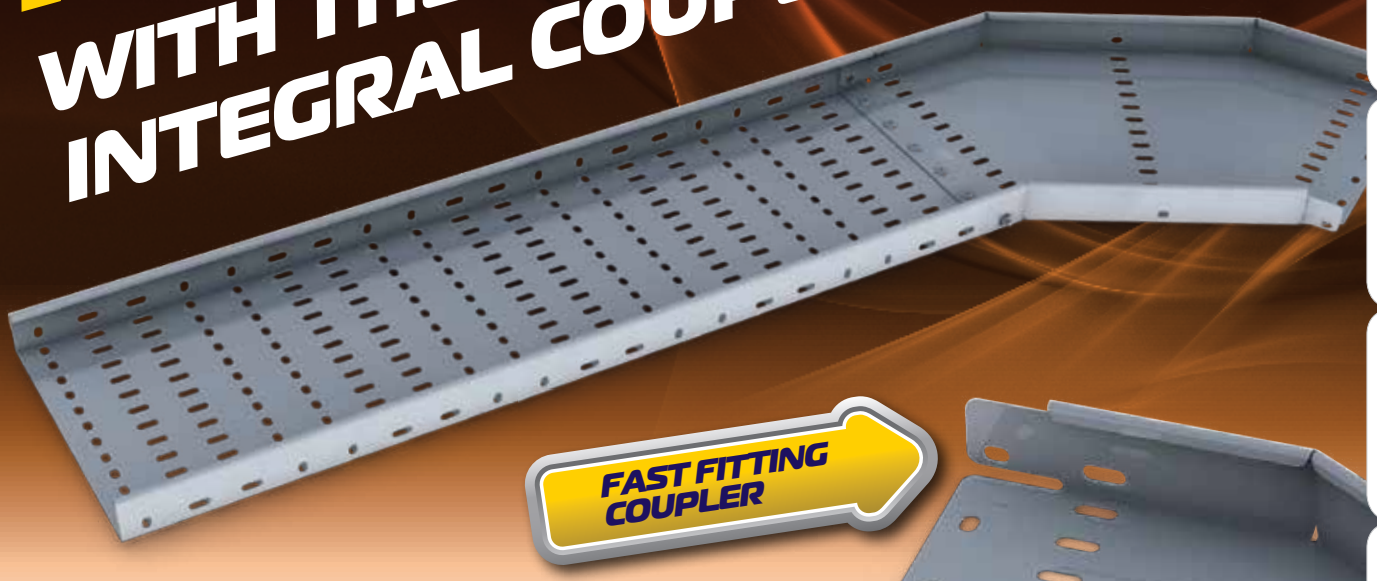
Finishes & Materials: GA SS GX GK

Supplied with: x0

Not Required:

HOW TO ORDER: HR (System Type) / FE60 (Fitting Type) / 300 (Width) / GX (Finish)

GET THE PERFECT FIT WITH THE CABLE TRAY INTEGRAL COUPLER



FAST FITTING COUPLER

CABLE TRAY FEATURES:

Vantrunk cable tray fittings in medium and heavy duty range include integrated couplings, that give the following benefits:

- Eliminate the need for any additional couplers when joining a fitting to a straight length.
- Reduces the number of fixings required and saves installation time and money.
- Each fitting gives full support, not only to the fitting sides but also along the base due to the integral fish plate style coupler.
- An integral Fish plate coupling on the fitting to the cable tray base overlaps and provides a smooth connection to help eliminate any cable damage.
- Improves earth continuity

For more information on the Cable Tray Integral Coupler visit vantrunk.com

VANTRUNK CABLE-TRAY

VANTRUNK CABLE-TRAY

CABLE TRAY RISERS

Risers are used to create angular changes in direction between cable tray runs in different planes and can be used in both the horizontal and vertical orientations.

Vantrunk cable tray risers are available in widths of 50mm to 900mm. The width is measured externally between the side walls to facilitate the use of the integral coupler.

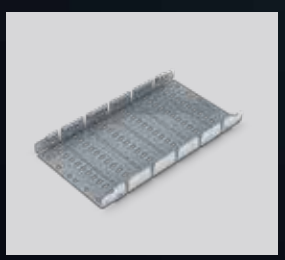
The Vantrunk Medium Duty Return Flange riser has a sidewall height of 25mm. The standard Vantrunk Heavy Duty Return Flange riser has a side wall height of 50mm. Other heavy duty sidewall heights from 30mm to 150mm are available to order.

For widths up to and including 600mm, the Vantrunk cable tray risers are supplied as variable risers for forming to either an inside (internal) riser, outside (external) riser or offset riser as required. The variable riser can be formed from 0° to over 90° as both an inside (internal) or outside (external) riser. The variable riser can also be used to create offsets to suit particular site installation requirements.

For widths above 600mm, the Vantrunk cable tray riser is supplied as a pre-formed inside or outside riser with fixed angles of 30°, 45°, 60° and 90° as standard.

When formed to 90°, Vantrunk Medium Duty Return Flange cable tray risers have a nominal radius of 150mm for widths up to and including 300mm, and a nominal radius of 300mm for widths of 450mm and above. When formed to 90°, Vantrunk Heavy Duty Return Flange cable tray risers have a nominal radius of 300mm for all widths. Other radii are available to order.

Information shown is for Heavy Duty Return Flange risers, data for other sidewall heights available on request.



Vantrunk Heavy Duty Return Flange Cable Tray Variable Riser used to create an inside, outside or offset risers. (Widths 50mm to 600mm)

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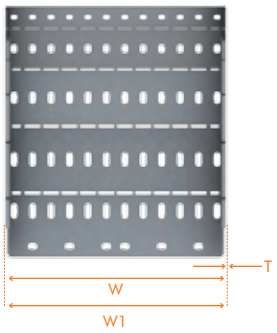
HOW TO ORDER

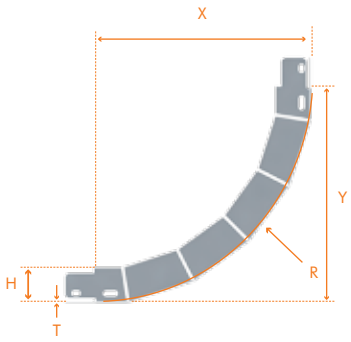
HR / VR / 75 / SS

System Type / Fitting Type / Width / Finish

Heavy Duty Variable Riser

Ref. HR/VR





Part Number	Fitting Width mm	W mm	W1 mm	T mm	R mm	X mm	Y mm	Weight (kg)
Variable Risers as 30° Inside Risers								
HR/VR/50/○	50	48.2	50	0.9	300	401	212	0.60
HR/VR/75/○	75	73.2	75			401	212	0.69
HR/VR/100/○	100	98.2	100			401	212	0.77
HR/VR/150/○	150	148.2	150			401	212	0.96
HR/VR/200/○	200	197.6	200	1.2		401	212	1.53
HR/VR/225/○	225	222.6	225			401	212	1.67
HR/VR/300/○	300	297.6	300			401	212	2.04
Variable Risers as 45° Inside Risers								
HR/VR/50/○	50	48.2	50	0.9	300	380	238	0.60
HR/VR/75/○	75	73.2	75			380	238	0.69
HR/VR/100/○	100	98.2	100			380	238	0.77
HR/VR/150/○	150	148.2	150			380	238	0.96
HR/VR/200/○	200	197.6	200	1.2		380	238	1.53
HR/VR/225/○	225	222.6	225			380	238	1.67
HR/VR/300/○	300	297.6	300			380	238	2.04
Variable Risers as 60° Inside Risers								
HR/VR/50/○	50	48.2	50	0.9	300	356	362	0.596
HR/VR/75/○	75	73.2	75			356	362	0.69
HR/VR/100/○	100	98.2	100			356	362	0.77
HR/VR/150/○	150	148.2	150			356	362	0.96
HR/VR/200/○	200	197.6	200	1.2		356	362	1.53
HR/VR/225/○	225	222.6	225			356	362	1.67
HR/VR/300/○	300	297.6	300			356	362	2.04
Variable Risers as 90° Inside Risers								
HR/VR/50/○	50	48.2	50	0.9	300	301	301	0.60
HR/VR/75/○	75	73.2	75			301	301	0.69
HR/VR/100/○	100	98.2	100			301	301	0.77
HR/VR/150/○	150	148.2	150			301	301	0.96
HR/VR/200/○	200	197.6	200	1.2		301	301	1.53
HR/VR/225/○	225	222.6	225			301	301	1.67
HR/VR/300/○	300	297.6	300			301	301	2.04

Part Number	Fitting Width mm	W mm	W1 mm	T mm	R mm	X mm	Y mm	Weight (kg)
Variable Risers as 30° Outside Risers								
HR/VR/50/○	50	48.2	50	0.9	300	448	170	0.60
HR/VR/75/○	75	73.2	75			448	170	0.69
HR/VR/100/○	100	98.2	100			448	170	0.77
HR/VR/150/○	150	148.2	150			448	170	0.96
HR/VR/200/○	200	197.6	200	1.2		448	170	1.53
HR/VR/225/○	225	222.6	225			448	170	1.67
HR/VR/300/○	300	297.6	300			448	170	2.04
Variable Risers as 45 Outside Risers								
HR/VR/50/○	50	48.2	50	0.9	300	461	225	0.60
HR/VR/75/○	75	73.2	75			461	225	0.69
HR/VR/100/○	100	98.2	100			461	225	0.77
HR/VR/150/○	150	148.2	150			461	225	0.96
HR/VR/200/○	200	197.6	200	1.2		461	225	1.53
HR/VR/225/○	225	222.6	225			461	225	1.67
HR/VR/300/○	300	297.6	300			461	225	2.04
Variable Risers as 60° Outside Risers								
HR/VR/50/○	50	48.2	50	0.9	300	433	275	0.60
HR/VR/75/○	75	73.2	75			433	275	0.69
HR/VR/100/○	100	98.2	100			433	275	0.77
HR/VR/150/○	150	148.2	150			433	275	0.96
HR/VR/200/○	200	197.6	200	1.2		433	275	1.53
HR/VR/225/○	225	222.6	225			433	275	1.67
HR/VR/300/○	300	297.6	300			433	275	2.04
Variable Risers as 90° Outside Risers								
HR/VR/50/○	50	48.2	50	0.9	300	348	348	0.60
HR/VR/75/○	75	73.2	75			348	348	0.69
HR/VR/100/○	100	98.2	100			348	348	0.77
HR/VR/150/○	150	148.2	150			348	348	0.96
HR/VR/200/○	200	197.6	200	1.2		348	348	1.53
HR/VR/225/○	225	222.6	225			348	348	1.67
HR/VR/300/○	300	297.6	300			348	348	2.04

Finishes & Materials:

Supplied with:

Not Required:

○= Select a Finish & Material

Gauge & weights are given for the hot dip galvanized mild steel cable tray, with a standard side wall height of 50mm. Refer to 'Cable Tray Technical Data' for other materials and gauges.

VANTRUNK CABLE-TRAY

CABLE TRAY TEES

Tees are used to create right angle connections in the same plane, between horizontal cable tray runs when the cable tray is installed in the horizontal plane and between vertical cable tray runs when the cable tray is installed in the vertical plane.

Vantrunk cable tray tees are available in combinations of widths of 50mm to 900mm. Tees with the same main & branch width are called equal tees. Tees which have a different main width to the branch width are called unequal tees. The width is measured externally between the side walls to facilitate the use of the integral coupler.

The Vantrunk Medium Duty Return Flange tee has a sidewall height of 25mm. The standard Vantrunk Heavy Duty Return Flange tee has a side wall height of 50mm. Other heavy duty side wall heights from 30mm to 150mm are available to order.

Unequal/unequal tees, where all three exits are different, are available to order. Consult our Sales Team for further details.

Vantrunk cable tray equal tees and unequal tees have a nominal internal radius of 75mm for widths up to and including 150mm, and a nominal internal radius of 150mm for widths of 200mm and above. Other radii are available to order.

Information shown is for Heavy Duty Return Flange tees, data for other sidewall heights available on request.

ACCREDITED TO THE FOLLOWING STANDARD

CE

HOW TO ORDER

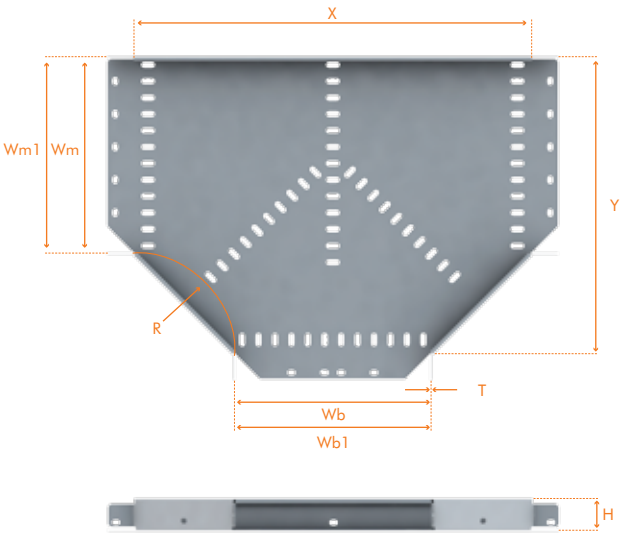
HR / ET / 50 / GA

System Type / Fitting Type / Width / Finish

Heavy Duty Equal Tees

Ref. HR/ET

Vantrunk Heavy Duty Return Flange cable tray equal tees have a main width Wm and a branch width Wb which are identical.



Part Number	Tray Fitting		Wm mm	Wm1 mm	Wb mm	Wb1 mm	T mm	R mm	X mm	Y mm	Weight (kg)
	Main width mm	Branch Width mm									
HR/ET/50/○	50		48.2	50	48.2	50	0.9	75	204	127	0.40
HR/ET/75/○	75		73.2	75	73.2	75			229	152	0.52
HR/ET/100/○	100		98.2	100	98.2	100			254	177	0.63
HR/ET/150/○	150		148.2	150	148.2	150			304	227	0.87
HR/ET/200/○	200		197.6	200	197.6	200	1.2	150	504	352	2.39
HR/ET/225/○	225		222.6	225	222.6	225			530	377	2.61
HR/ET/300/○	300		297.6	300	297.6	300			605	452	3.30

○= Select a Finish & Material

Finishes & Materials:

Supplied with:

Not Required:

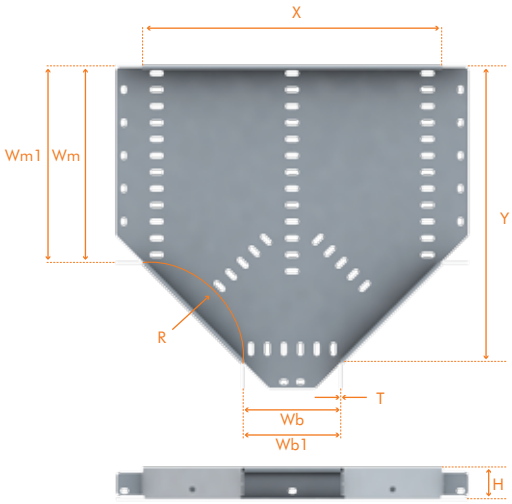
Gauge & weights are given for the hot dip galvanized mild steel cable tray, with a standard side wall height of 50mm. Refer to 'Cable Tray Technical Data' for other materials and gauges.

Heavy Duty Unequal Tees

Ref. HR/UT

Vantrunk Heavy Duty Return Flange cable tray equal tees have a main width Wm and a branch width Wb which are different.

Part Number	Tray Fitting		Wm mm	Wm1 mm	Wb mm	Wb1 mm	T mm	R mm	X mm	Y mm	Weight (kg)
	Main width mm	Branch Width mm									
HR/UT/50/75/○	50	75	48.2	50	73.2	75	0.9	75	229	127	0.47
HR/UT/50/100/○	50	100	48.2	50	98.2	100			254	127	0.51
HR/UT/50/150/○	50	150	48.2	50	148.2	150			304	127	0.59
HR/UT/50/200/○	50	200	47.6	50	197.6	200	1.2	150	504	202	1.51
HR/UT/50/225/○	50	225	47.6	50	222.6	225			530	202	1.59
HR/UT/50/300/○	50	300	47.6	50	297.6	300			605	202	1.82
HR/UT/75/50/○	75	50	73.2	75	48.2	50	0.9	75	204	152	0.48
HR/UT/75/100/○	75	100	73.2	75	98.2	100			254	152	0.57
HR/UT/75/150/○	75	150	73.2	75	148.2	150			304	152	0.66
HR/UT/75/200/○	75	200	72.6	75	197.6	200	1.2	150	504	227	1.65
HR/UT/75/225/○	75	225	72.6	75	222.6	225			530	227	1.74
HR/UT/75/300/○	75	300	72.6	75	297.6	300			355	227	1.98
HR/UT/100/50/○	100	50	98.2	100	48.2	50	0.9	75	229	177	0.53
HR/UT/100/75/○	100	75	98.2	100	73.2	75			254	177	0.58
HR/UT/100/150/○	100	150	98.2	100	148.2	150			304	177	0.73
HR/UT/100/200/○	100	200	97.6	100	197.6	200	1.2	150	504	252	1.80
HR/UT/100/225/○	100	225	97.6	100	222.6	225			530	252	1.88
HR/UT/100/300/○	100	300	97.6	100	297.6	300			605	252	2.14
HR/UT/150/50/○	150	50	148.2	150	48.2	50	0.9	75	204	227	0.63
HR/UT/150/75/○	150	75	148.2	150	73.2	75			254	227	0.68
HR/UT/150/100/○	150	100	148.2	150	98.2	100			304	227	0.74
HR/UT/150/200/○	150	200	147.6	150	197.6	200	1.2	150	504	302	2.09
HR/UT/150/225/○	150	225	147.6	150	222.6	225			530	302	2.18
HR/UT/150/300/○	150	300	147.6	150	297.6	300			605	302	2.47
HR/UT/200/50/○	200	50	197.6	200	47.6	50	1.2	150	354	352	0.95
HR/UT/200/75/○	200	75	197.6	200	72.6	75			379	352	1.80
HR/UT/200/100/○	200	100	197.6	200	97.6	100			404	352	1.94
HR/UT/200/150/○	200	150	197.6	200	147.6	150			454	352	2.17
HR/UT/200/225/○	200	225	197.6	200	222.6	225			529	352	3.12
HR/UT/200/300/○	200	300	197.6	200	297.6	300			604	352	2.85
HR/UT/225/50/○	225	50	222.6	225	47.6	50	1.2	150	356	377	1.80
HR/UT/225/75/○	225	75	222.6	225	72.6	75			380	377	1.91
HR/UT/225/100/○	225	100	222.6	225	97.6	100			405	377	2.03
HR/UT/225/150/○	225	150	222.6	225	147.6	150			455	377	2.27
HR/UT/225/200/○	225	200	222.6	225	197.6	200			504	377	2.49
HR/UT/225/300/○	225	300	222.6	225	297.6	300			605	377	2.96
HR/UT/300/50/○	300	50	297.6	300	47.6	50	1.2	150	356	452	2.11
HR/UT/300/75/○	300	75	297.6	300	72.6	75			380	452	2.24
HR/UT/300/100/○	300	100	297.6	300	97.6	100			405	452	2.41
HR/UT/300/150/○	300	150	297.6	300	147.6	150			455	452	2.65
HR/UT/300/200/○	300	200	297.6	300	197.6	200			504	452	2.93
HR/UT/300/225/○	300	225	297.6	300	222.6	225			530	452	3.05



Finishes & Materials: GA SS GX GK

Supplied with: x0

Not Required:

○= Select a Finish & Material

Gauge & weights are given for the hot dip galvanized mild steel cable tray, with a standard side wall height of 50mm. Refer to 'Cable Tray Technical Data' for other materials and gauges.

HOW TO ORDER

HR100 / UT / 200 / 50 / GK

System Type / Fitting Type / Main Width / Branch Width / Finish

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VANTRUNK CABLE-TRAY

CROSSES

Crosses are used to create right angle intersections in the same plane, between horizontal cable tray runs when the cable tray is installed in the horizontal plane and between vertical cable tray runs when the cable tray is installed in the vertical plane.

Vantrunk heavy Duty Return Flange cable tray crosses are available in widths of 50mm to 900mm. The width is measured externally between the side walls to facilitate the use of the integral coupler.

The Vantrunk Medium Duty Return Flange cross has a sidewall height of 25mm. The standard Vantrunk Heavy Duty Return Flange cross has a side wall height of 50mm. Other heavy duty side wall heights from 30mm to 150mm are available to order.

Vantrunk Medium Duty Return Flange crosses have a nominal internal radius of 75mm for widths up to and including 150mm and a nominal internal radius of 150mm for widths of 200mm and above. Other radii are available to order.

Information shown is for Heavy Duty Return Flange crosses, data for other sidewall heights available on request.

ACCREDITED TO THE FOLLOWING STANDARD

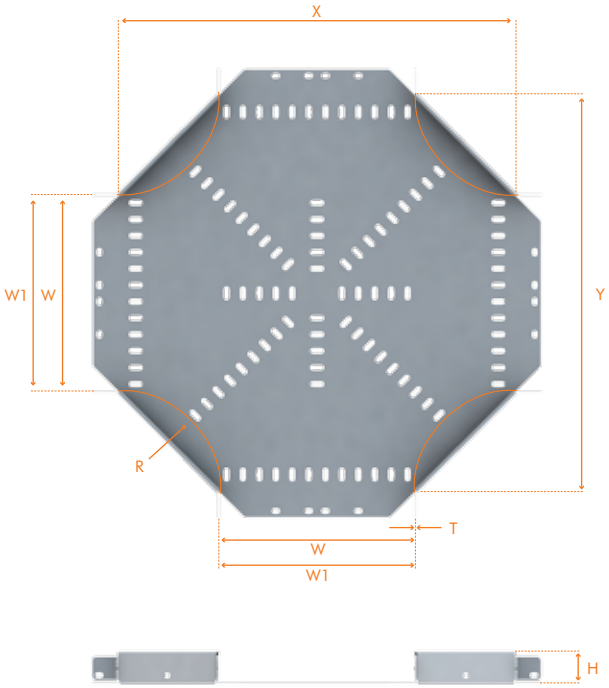
CE

HOW TO ORDER

HR	/ EC	/ 50	/ GA
System Type	Fitting Type	Width	Finish

Heavy Duty Crosses

Ref. HR/EC



Part Number	Fitting Width mm	W mm	W1 mm	T mm	R mm	X mm	Y mm	Weight (kg)
HR/EC/50/○	50	48.2	50	0.9	75	210	210	0.48
HR/EC/75/○	75	73.2	75			235	235	0.62
HR/EC/100/○	100	98.2	100			260	260	0.73
HR/EC/150/○	150	148.2	150			310	310	0.98
HR/EC/200/○	200	197.6	200	1.2	150	511	511	2.88
HR/EC/225/○	225	222.6	225			536	536	3.17
HR/EC/300/○	300	297.6	300			611	617	4.10

Finishes & Materials: GA SS GX GK

Supplied with: x0

Not Required:

○= Select a Finish & Material

Gauge & weights are given for the hot dip galvanized mild steel cable tray, with a standard side wall height of 50mm. Refer to 'Cable Tray Technical Data' for other materials and gauges.

VANTRUNK CABLE-TRAY

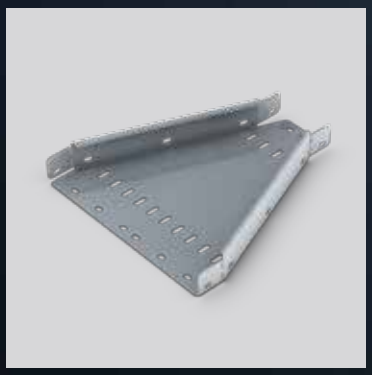
REDUCERS

Reducers are used to create a reduction in width along the cable tray run.

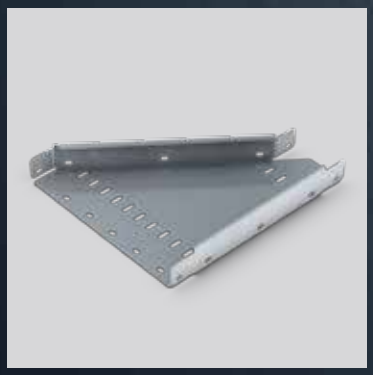
Straight reducers (RS) are used to create a concentric reduction, having an equal width reduction along both sides. Left hand reducers (RL) and right hand reducers (RR) are used to create offset reductions to suit particular site installation requirements.

Left hand reducers have the width reduction on the left when viewed from the primary width. Right hand reducers have the width reduction on the right when viewed from the primary width.

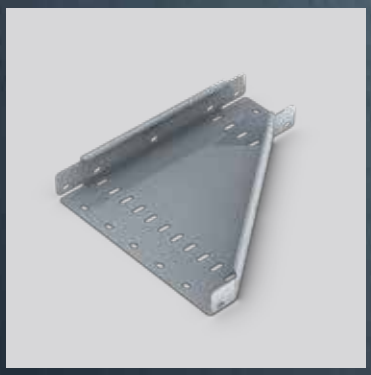
The Vantrunk Medium Duty Return Flange reducers have a sidewall height of 25mm. The standard Vantrunk Heavy Duty Return Flange reducers have a side wall height of 50mm. Other heavy duty side wall heights from 30mm to 150mm are available to order.



Vantrunk Heavy Duty Return Flange Cable Tray Straight Reducers



Vantrunk Heavy Duty Return Flange Cable Tray Left Hand Reducers



Vantrunk Heavy Duty Return Flange Cable Tray Right Hand Reducers

Vantrunk cable tray reducers are available in any combination widths from 900mm to 450mm and from 450mm to 50mm as standard. Other width combinations are available to order. The width is measured externally between the side walls to facilitate the use of the integral coupler.

Vantrunk cable tray reducers have a standard length of 250mm.

Information shown is for Heavy Duty Return Flange reducers, data for other sidewall heights available on request.

ACCREDITED TO THE FOLLOWING STANDARD

CE

HOW TO ORDER

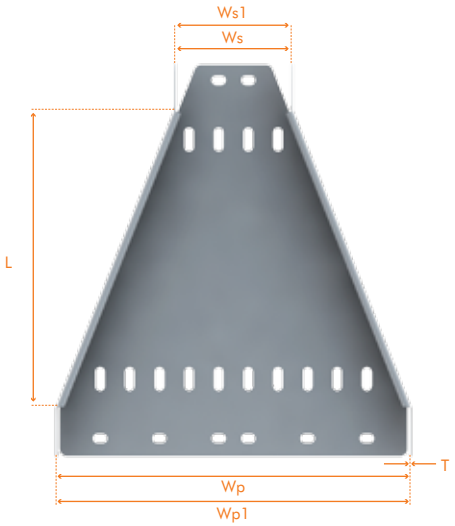
HR / RS / 150 / 100 / GX

System Type | Fitting Type | Primary Width | Secondary Width | Finish

Heavy Duty Straight Reducer

Ref. HR/RS

Straight reducers (RS) are used to create a concentric reduction, having an equal width reduction along both sides.



Part Number	Tray Fitting		Wp mm	Wp1 mm	Ws mm	Ws1 mm	T mm	L mm	Weight (kg)
	Primary width mm	Secondary Width mm							
HR/RS/75/50/○	75	50	73.2	75	48.2	50	0.9	250	0.40
HR/RS/100/50/○	100	50	98.2	100	48.2	50	0.9	250	0.43
HR/RS/100/50/○	100	75	98.2	100	73.2	75			0.49
HR/RS/150/50/○	150	50	148.2	150	48.2	50	0.9	250	0.50
HR/RS/150/75/○	150	75	148.2	150	73.2	75			0.56
HR/RS/150/100/○	150	100	148.2	150	98.2	100			0.58
HR/RS/200/50/○	200	50	197.6	200	47.6	50	1.2	250	0.55
HR/RS/200/75/○	200	75	197.6	200	72.6	75			0.61
HR/RS/200/100/○	200	100	197.6	200	97.6	100			0.64
HR/RS/200/150/○	200	150	197.6	200	147.6	150			0.70
HR/RS/225/50/○	225	50	223.2	225	48.2	48.2	0.9	250	0.59
HR/RS/225/75/○	225	75	223.2	225	73.2	73.2			0.65
HR/RS/225/100/○	225	100	223.2	225	98.2	98.2			0.68
HR/RS/225/150/○	225	150	223.2	225	148.2	148.2			0.73
HR/RS/225/200/○	225	200	222.6	225	197.6	200	1.2		0.78
HR/RS/300/50/○	300	50	298.2	300	48.2	50	0.9	250	0.70
HR/RS/300/75/○	300	75	298.2	300	73.2	75			0.75
HR/RS/300/100/○	300	100	298.2	300	98.2	100			0.78
HR/RS/300/150/○	300	150	298.2	300	148.2	150			0.84
HR/RS/300/200/○	300	200	297.6	300	197.6	200	1.2		0.88
HR/RS/300/225/○	300	225	297.6	300	222.6	225			1.21

Finishes & Materials: GA SS GX GK

Supplied with: x0

Not Required:

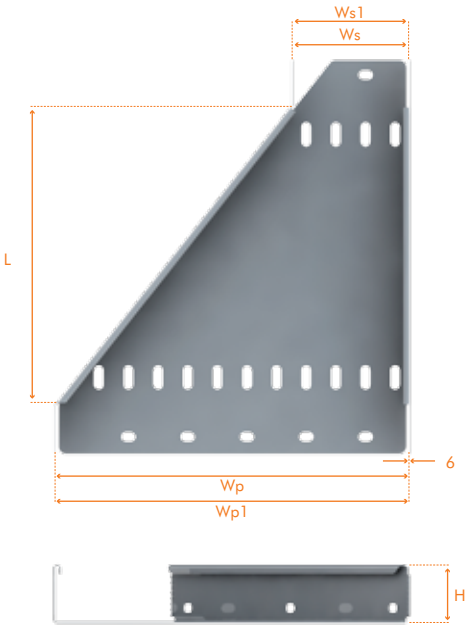
○= Select a Finish & Material

Gauge & weights are given for the hot dip galvanized mild steel cable tray, with a standard side wall height of 50mm. Refer to 'Cable Tray Technical Data' for other materials and gauges.

Heavy Duty Left Hand Reducer

Ref. HR/RL

Left hand reducers are used to create offset reductions to suit particular site installation requirements. Left hand reducers have the width reduction on the left when viewed from the primary width.



Part Number	Tray Fitting		Wp mm	Wp1 mm	Ws mm	Ws1 mm	T mm	L mm	Weight (kg)
	Primary width mm	Secondary Width mm							
HR/RL/75/50/○	75	50	73.2	75	48.2	50	0.9	250	0.40
HR/RL/100/50/○	100	50	98.2	100	48.2	50	0.9	250	0.43
HR/RL/100/50/○	100	75	98.2	100	73.2	75			0.49
HR/RL/150/50/○	150	50	148.2	150	48.2	50	0.9	250	0.50
HR/RL/150/75/○	150	75	148.2	150	73.2	75			0.56
HR/RL/150/100/○	150	100	148.2	150	98.2	100			0.58
HR/RL/200/50/○	200	50	197.6	200	47.6	50	1.2	250	0.56
HR/RL/200/75/○	200	75	197.6	200	72.6	75			0.62
HR/RL/200/100/○	200	100	197.6	200	97.6	100			0.64
HR/RL/200/150/○	200	150	197.6	200	147.6	150			0.70
HR/RL/225/50/○	225	50	223.2	225	48.2	50	0.9	250	0.61
HR/RL/225/75/○	225	75	223.2	225	73.2	75			0.66
HR/RL/225/100/○	225	100	223.2	225	98.2	100			0.68
HR/RL/225/150/○	225	150	223.2	225	148.2	150			0.74
HR/RL/225/200/○	225	200	222.6	225	197.6	200	1.2		0.78
HR/RL/300/50/○	300	50	298.2	300	48.2	50	0.9	250	0.72
HR/RL/300/75/○	300	75	298.2	300	73.2	75			0.77
HR/RL/300/100/○	300	100	298.2	300	98.2	100			0.80
HR/RL/300/150/○	300	150	298.2	300	148.2	150			0.84
HR/RL/300/200/○	300	200	297.6	300	197.6	200	1.2		0.88
HR/RL/300/225/○	300	225	297.6	300	222.6	225			1.20

Finishes & Materials: GA SS GX GK

Supplied with: x0

Not Required:

○= Select a Finish & Material

Gauge & weights are given for the hot dip galvanized mild steel cable tray, with a standard side wall height of 50mm. Refer to 'Cable Tray Technical Data' for other materials and gauges.

HOW TO ORDER

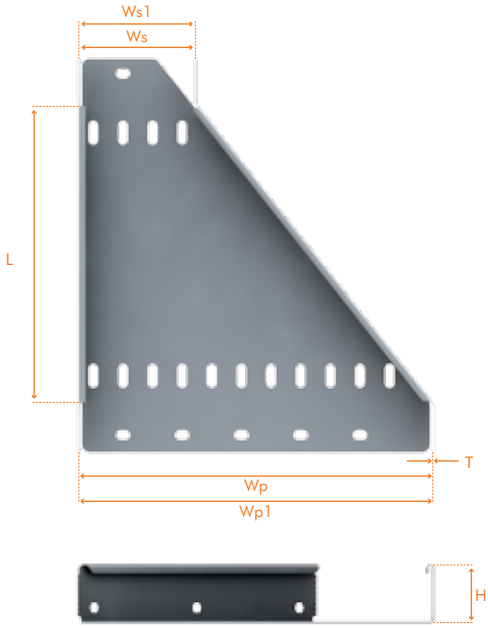
HR / RL / 75 / 50 / GA

System Type / Fitting Type / Primary Width / Secondary Width / Finish

Heavy Duty Right Hand Reducer

Ref. HR/RR

Right hand reducers (RR) are used to create offset reductions to suit particular site installation requirements. Right hand reducers have the width reduction on the right when viewed from the primary width.



Part Number	Tray Fitting		Wp mm	Wp1 mm	Ws mm	Ws1 mm	T mm	L mm	Weight (kg)
	Primary width mm	Secondary Width mm							
HR/RR/75/50/○	75	50	73.2	75	48.2	50	0.9	250	0.40
HR/RR/100/50/○	100	50	98.2	100	48.2	50	0.9	250	0.43
HR/RR/100/75/○	100	75	98.2	100	73.2	75			0.49
HR/RR/150/50/○	150	50	148.2	150	48.2	50	0.9	250	0.50
HR/RR/150/75/○	150	75	148.2	150	73.2	75			0.56
HR/RR/150/100/○	150	100	148.2	150	98.2	100			0.58
HR/RR/200/50/○	200	50	197.6	200	47.6	50	1.2	250	0.56
HR/RR/200/75/○	200	75	197.6	200	72.6	75			0.62
HR/RR/200/100/○	200	100	197.6	200	97.6	100			0.64
HR/RR/200/150/○	200	150	197.6	200	147.6	150			0.70
HR/RR/225/50/○	225	50	223.2	225	48.2	50	0.9	250	0.61
HR/RR/225/75/○	225	75	223.2	225	73.2	75			0.66
HR/RR/225/100/○	225	100	223.2	225	98.2	100			0.68
HR/RR/225/150/○	225	150	223.2	225	148.2	150			0.74
HR/RR/225/200/○	225	200	222.6	225	197.6	200	1.2		0.78
HR/RR/300/50/○	300	50	298.2	300	48.2	50	0.9	250	0.72
HR/RR/300/75/○	300	75	298.2	300	73.2	75			0.77
HR/RR/300/100/○	300	100	298.2	300	98.2	100			0.80
HR/RR/300/150/○	300	150	298.2	300	148.2	150			0.84
HR/RR/300/200/○	300	200	297.6	300	197.6	200	1.2		0.88
HR/RR/300/225/○	300	225	297.6	300	222.6	225			1.20

Finishes & Materials: GA SS GX GK

Supplied with: x0

Not Required:

○= Select a Finish & Material

Gauge & weights are given for the hot dip galvanized mild steel cable tray, with a standard side wall height of 50mm. Refer to 'Cable Tray Technical Data' for other materials and gauges.

VANTRUNK CABLE-TRAY

COUPLERS

A full range of couplers are available for the Vantrunk Cable Tray system, providing a secure and versatile means of connecting straight cable tray lengths.

Vantrunk supply two alternative methods of coupling straight lengths of tray together that both ensure a safe straight joint. Unless otherwise stated, the Flat Bar Coupler will be supplied as standard.

Vantrunk also supply a range of additional couplers including horizontal & vertical adjustable couplers which allow offsets to be made in cable tray runs to suit specific site installation requirements.

Information shown is for Heavy Duty Return Flange couplers, data for other sidewall heights is available on request.

ACCREDITED TO THE FOLLOWING STANDARD

CE

HOW TO ORDER

HR / FBC / SS

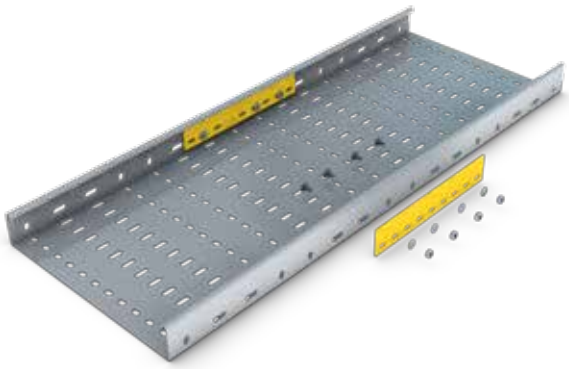
System Type Coupler Type Finish

Heavy Duty Flat Bar Coupler

Ref. HR/FBC

The Vantrunk Heavy Duty Return Flange cable tray flat bar coupler is the standard means of connecting straight lengths of cable tray and is available in the full range of side wall heights to match that of the cable tray range. Unless otherwise specified, the flat bar coupler will be supplied as standard.

Flat Bar Couplers are supplied individually and with fixings.



Part Number
HR/FBC/⬡

Finishes & Materials: GA SS GX GK

Supplied with: x4

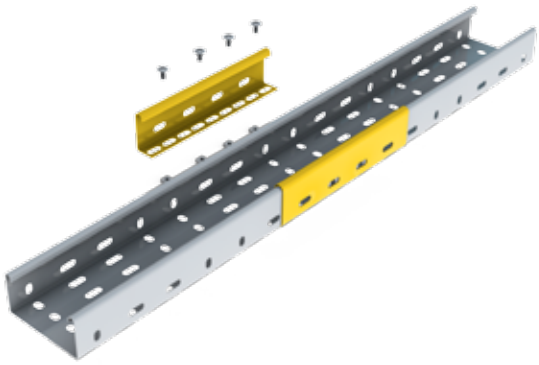
⬡= **Select a Finish & Material**

Heavy Duty Straight Coupler

Ref. HR/SC

The Vantrunk heavy duty return flange cable tray straight coupler provides an effective means of connection between heavy duty return flange straight cable tray lengths.

Straight Couplers are supplied as pairs and with fixings.



Part Number
HR/FBC/⬡

Finishes & Materials: GA SS GX GK

Supplied with: x8

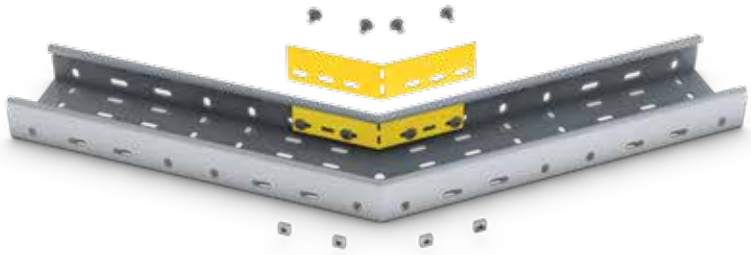
⬡= **Select a Finish & Material**

Heavy Duty Horizontal Adjustable Coupler

Ref. HR/HAC

The Vantrunk Heavy Duty Return Flange cable tray horizontal adjustable coupler allows horizontal adjustment between adjacent lengths of cable tray and is available in the full range of side wall heights to match that of the Heavy Duty cable tray.

Horizontal Adjustable Couplers are supplied individually and with fixings.



Part Number
HR/HAC/○

○= Select a Finish & Material

Finishes & Materials:

Supplied with:

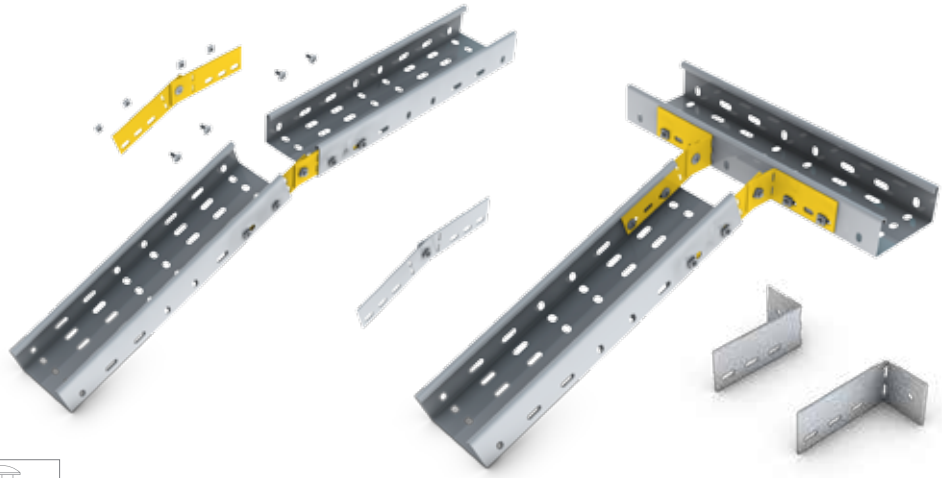
Heavy Duty Vertical Adjustable Coupler

Ref. HR/VAC

The Vantrunk Heavy Duty Return Flange cable tray vertical adjustable coupler is the standard means of allowing vertical adjustment between adjacent lengths of cable tray and is available in the full range of side wall heights to match that of the Heavy Duty cable tray.

The vertical adjustable coupler features easi-bend slots which allow the couplers to be adjusted on site to create combined horizontal & vertical offset connections, tray connections onto the side of a cable tray run to form tee connections, or connections directly to a wall or floor.

Vertical Adjustable Couplers are supplied individually and with fixings.

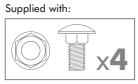


Part Number
HR/VAC /○

○= Select a Finish & Material

Finishes & Materials:

Supplied with:

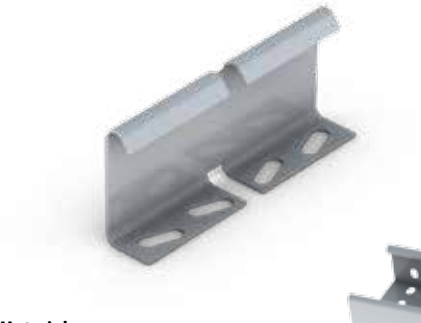


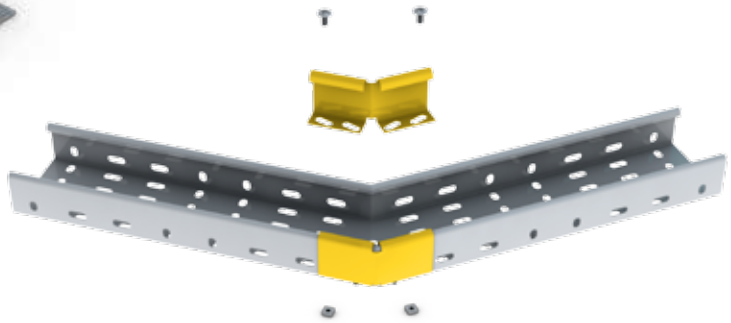
Heavy Duty Adjustable Coupler

Ref. HR/AC

The Vantrunk Heavy Duty Return Flange cable tray adjustable coupler allows horizontal adjustment between adjacent lengths of cable tray.

Adjustable Couplers are supplied as pairs and with fixings.





Part Number
HR/AC/○

○= Select a Finish & Material

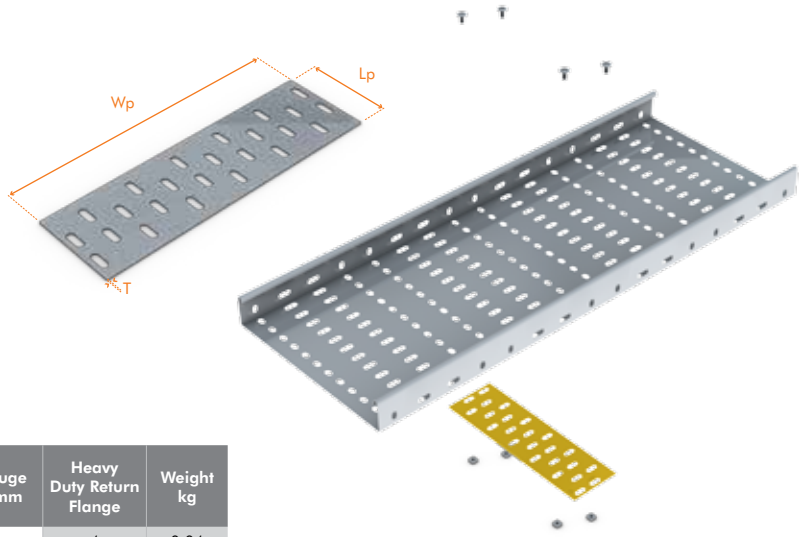
Finishes & Materials:

Supplied with:

Fish Plate Coupler

Ref. TR/FPC

The Vantrunk fish plate coupler gives support across the base of the cable tray and is available to suit cable tray of widths 50mm to 900mm. Fish plate couplers are recommended for connecting straight cable trays which are heavily loaded.



Part Number	Tray Width mm	Wp mm	Lp mm	Gauge T mm	Heavy Duty Return Flange	Weight kg
TR/FPC/50/○	50	42	88	1.5	4	0.04
TR/FPC/75/○	75	67			4	0.07
TR/FPC/100/○	100	92			4	0.09
TR/FPC/150/○	150	142			4	0.14
TR/FPC/200/○	200	192			6	0.18
TR/FPC/225/○	225	217			6	0.21
TR/FPC/300/○	300	292			6	0.28

Finishes & Materials:

Supplied with:

○= Select a Finish & Material

Weights shown are for standard hot dip galvanised finish only, for Stainless Steel & Corten A weight please refer to the technical section of our catalogue.

VANTRUNK CABLE-TRAY

ACCESSORIES

The Vantrunk cable tray system is complemented by a range of accessories deigned to aid installation and to add additional functionality & flexibility to the cable tray installation.

Where required the information shown is for Heavy Duty Return Flange accessories, data for other sidewall heights is available on request.

ACCREDITED TO THE
FOLLOWING STANDARD

CE

Tray Earth Bonding Strap

Ref. EBS/05

The tray earth bonding strap for cable tray (EBS/05) is designed for use in electrical installations where an additional means of earthing or electrical bonding is specified. The earth bonding strap comprises of a 4mm2 100mm long tinned copper braid with M6 tinned copper end connectors. The earth bonding strap is suitable for use with all types of Vantrunk cable tray.

Earth bonding straps are not supplied with fixings. Recommended fixings – two M6 x 12 pan head screws and M6 nuts (plus M6 flat washers for stainless steel). Consult our Sales Team for details.

Part Number
EBS/05

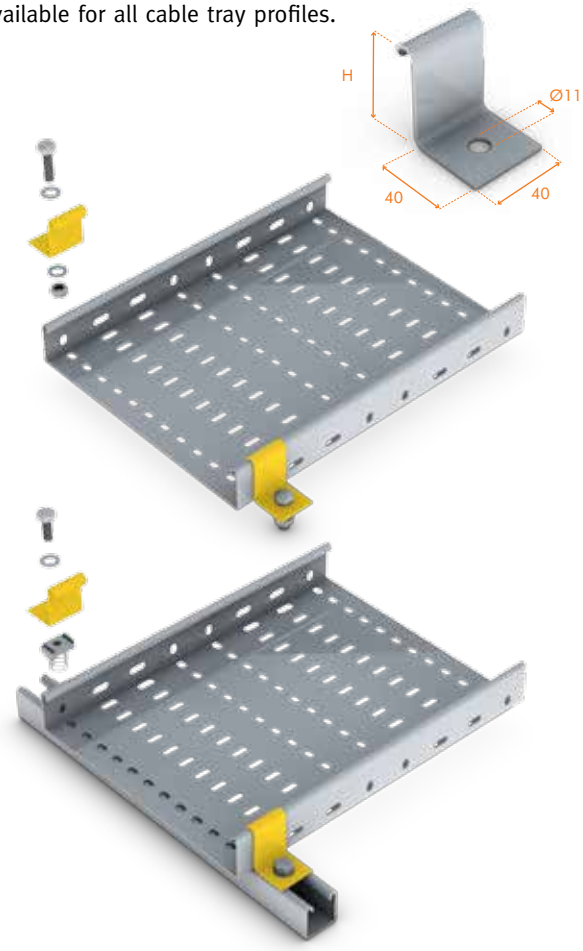
Supplied with:

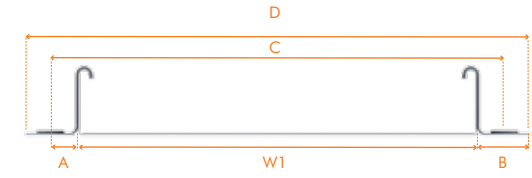
○= Select a Finish & Material

Hold Down Bracket

Ref. HDB

Hold-down brackets provide an alternative means of securing cable tray to the support structure, particularly where the slots in the base of the cable tray do not coincide with the supports. Ideal for use with Intelok Channel type support systems, the hold-down bracket is available for all cable tray profiles.





Tray Type	Dimensions mm				
	H	A	B	C	D
Heavy Duty HR	52	23	40	W1 + 46	W1 + 80

Part Number
HR/HDB/○

○= Select a Finish & Material

Finishes & Materials:

Supplied with:

Tray Insulating Assemblies

A comprehensive range of nylon insulating assemblies are available to suit those applications where there is a requirement to prevent bi-metallic corrosion occurring in either the Vantrunk cable tray system or the support structure. A typical example is a stainless steel Vantrunk cable tray system mounted on galvanized or painted steel supports.

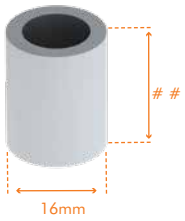
The insulating assembly is based on nylon base pads, nylon bushes and nylon washers which when used totally encapsulate the fixings and provide electrical separation between the Vantrunk cable tray system and the supporting structure.

M10 Nylon Bush

Part No.	NYM10X##B

Nylon Bush Length ##
= Steel Thickness (mm)

The length of the nylon bush is equal to the thickness of the supporting steelwork (##). The M10 nylon bush requires a 17mm diameter hole in the supporting steelwork.

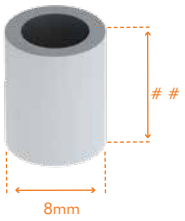


M6 Nylon Bush

Part No.	NYM6##BU

Nylon Bush Length ##
= Steel Thickness (mm)

The length of the nylon bush is equal to the thickness of the supporting steelwork (##). The M6 nylon bush requires a minimal 9mm diameter hole in the supporting steelwork.



M10 Fixing Bolt

Part No.	SSM10X☐HS

Minimum Thread
Length ☐ = 22 + ##

The minimum thread length for the fixing bolt is 22mm plus the thickness of the supporting steelwork. Refer to the table below for details of the fixing bolts.

M6 Fixing Bolt

Part No.	SSM6X☐PH

Minimum Thread
Length ☐ = 22 + ##

The minimum thread length for the fixing bolt is 22mm plus the thickness of the supporting steelwork. Refer to the table below for details of the fixing bolts.

SSM10X☐HS Fixing Bolt Details

Part Number	Thread Length	Description
SSM10X25HS	25mm	M10 x 25 Hex Head Set Screw Stainless Steel
SSM10X30HS	30mm	M10 x 30 Hex Head Set Screw Stainless Steel
SSM10X35HS	35mm	M10 x 35 Hex Head Set Screw Stainless Steel
SSM10X40HS	40mm	M10 x 40 Hex Head Set Screw Stainless Steel

SSM6X☐PH Fixing Bolt Details

Part Number	Thread Length	Description
SSM6X25PH	25mm	M6 x 25 Pan Head Screw Stainless Steel
SSM6X30PH	30mm	M6 x 30 Pan Head Screw Stainless Steel
SSM6X35PH	35mm	M6 x 35 Pan Head Screw Stainless Steel
SSM6X40PH	40mm	M6 x 40 Pan Head Screw Stainless Steel

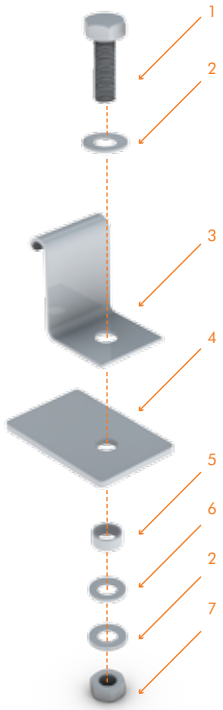
$$ - Fixing Bolt Tread Length (See table below)
- Thickness of supporting steelwork in mm.

For Example:

If the tray is to be mounted to the steelwork without a HDB, order: TR/INS12/SS. If the thickness of the Steelwork = 12mm. The length of the Nylon Bush is also 12mm = NYM6x12BU. This means that the Minimum Thread Length of the Fixing Bolt = 22 + 12 = 34mm. Rounding this figure up to the nearest standard bolt length of 35mm, the supplied bolt = SSM6x35PH

HOW TO ORDER
HR / HDB /SS-INS/12
System Type Accessory Type Finish Insulation / Bolt Length

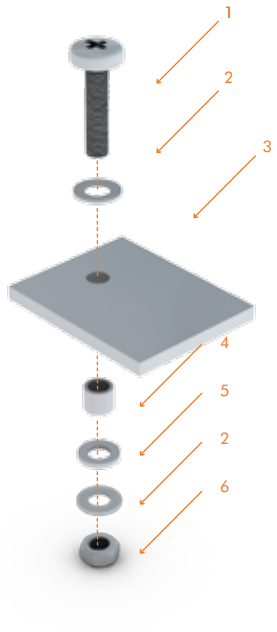
Insulating Assembly Components for Hold Down Bracket



Part Number	Item	Description
SSM10X☐HS	1	M10 Hex Head Set Screw Stainless Steel - Length = ☐
SSM10FW	2	M10 Flat Washer Stainless Steel
HR/HDB/SS	3	Heavy Duty Cable Tray Hold Down Bracket, Stainless Steel
315AN15	4	Nylon Pad (75 x 50 x 4mm)
315AN01-##	5	Nylon Bush - Length = ##
M10FW/NYL	6	M10 Flat Washer Nylon
SSM10HN	7	M10 Hex Nut Stainless Steel

$$ - Fixing Bolt Tread Length (See table below)
- Thickness of supporting steelwork in mm.

Insulating Assembly Components for Tray only insulation



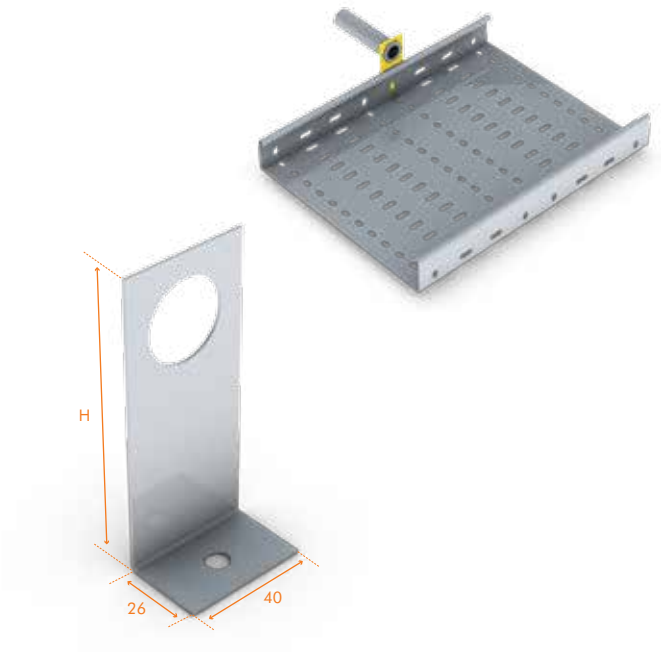
Part Number	Item	Description
SSM6X☐PH	1	M6 Pan Head Screw Stainless Steel - Length = ☐
SSM6FW	2	M6 Flat Washer Stainless Steel
315AN11	3	Nylon Pad (50 x 40 x 4mm)
315AN25-##	4	Nylon Bush - Length = ##
M6FW/NYL	5	Nylon Bush - Length = ##
M6FW/NYL	6	M6 Flat Washer Nylon

$$ - Fixing Bolt Tread Length (See table below)
- Thickness of supporting steelwork in mm.

Conduit Take-off Plate

Ref. TOP

Conduit take-off plates are suitable for use with all types of Vantrunk cable tray and are available with clearance holes to suit either 20mm or 25mm conduit fittings.



Part Number	Dimensions mm	
	Size	H
TR/TOP/20/○	20	94
TR/TOP/25/○	25	94

○= Select a Finish & Material

Finishes & Materials:

Supplied with:

To specify a conduit take-off plate for Vantrunk heavy duty return flange cable tray with a side wall height above 50mm, suffix the 'HR' designation with the required side wall height in millimetres.

Ordering example:

TR/TOP/25/SS — Vantrunk Cable Tray Conduit Take-off Plate, 25mm, Stainless Steel (316 Grade)

To specify a conduit take-off plate for Vantrunk heavy duty return flange cable tray with a side wall height above 50mm, suffix the 'HR' designation with the required side wall height in millimetres.

Ordering example:

HR75/TOP/20/GA — Vantrunk Heavy Duty Cable Tray, 75mm High, Conduit Take-off Plate, 20mm, Hot Dipped Galvanized Mild Steel.

Conduit Take-off Plates are not supplied with fixings.

Recommended fixings – M6 x 12 pan head screw and M6 nut (plus M6 flat washer for stainless steel). Consult our Sales Team for details.

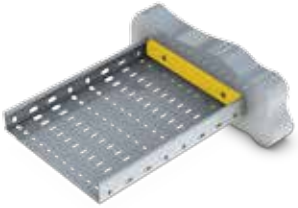
Tray End Plate

Ref. EP

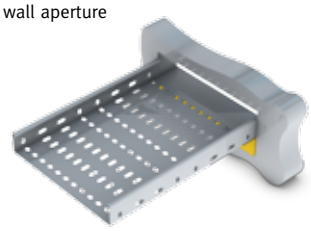
Vantrunk cable tray end plates provide an effective termination for open ends of cable trays.

Cable tray end plates are available in widths from 50mm to 900mm as standard. Each end plate has 20mm x 7mm fixing slots at 50mm centres which allow use for securing the cable tray to a wall or floor.

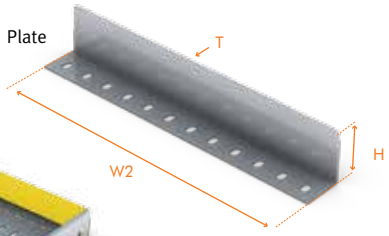
Vantrunk Cable Tray Tray End Plate used as wall plate fixing



Vantrunk Cable Tray Tray End Plate used to support tray at wall aperture



Vantrunk Cable Tray Tray End Plate



Part Number	Dimensions mm				No of Fixing Slots
	Tray Width W	W2	H	T	
HR/EP/50/○	50	46	Heavy Duty = 50	1.0	1
HR/EP/100/○	100	96			2
HR/EP/150/○	150	146			2
HR/EP/200/○	200	196	Heavy Duty = 50	1.5	3
HR/EP/225/○	225	221			3
HR/EP/300/○	300	296			5

○= Select a Finish & Material

Finishes & Materials:

Supplied with:

Tray end plates are not supplied with fixings.

Recommended fixings – M6 x 12 pan head screw and M6 nut (plus M6 flat washer for stainless steel). Consult our Sales Team for details.

HOW TO ORDER — TR / TOP / 20 / GA
System Type / Accessory Type / Size / Finish

Straight Tray Divider

Ref. DIV/SL3

Straight tray dividers are available for cable segregation and separation purposes along the length of the cable run. Straight tray dividers are available to suit all cable tray sections and are available in 3m lengths as standard.

Part Number	Dimensions mm			
	L	H	F	T
HR/DIV/SL3/○	3000	47	20	1

○= Select a Finish & Material

Finishes & Materials: GA SS GX GK

Supplied with: x0

Straight tray dividers are not supplied with fixings (3 fixings required per straight divider).

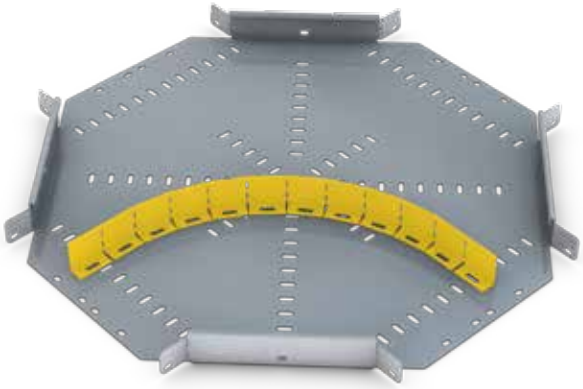
Recommended fixings – M6 x 12 pan head screw and M6 nut (plus M6 flat washer for stainless steel). Consult our Sales Team for details.

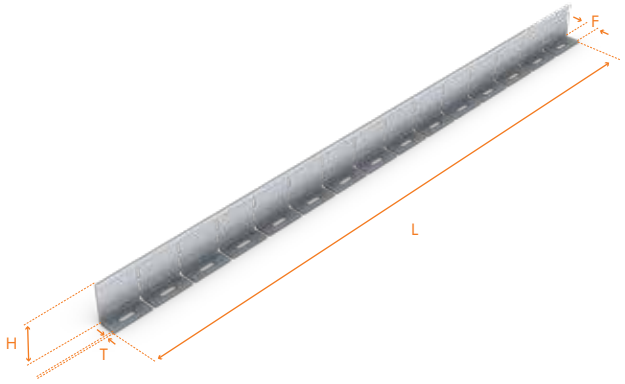
Subject to order requirements, straight tray dividers may be supplied in 1.5m lengths to suit delivery & shipping needs.

Tray Fitting Divider

Ref. DIV/FL0.6

Tray fitting dividers are available for cable segregation and separation purposes on fittings. The tray fitting divider is supplied as a 600MM straight length and is notched to allow for forming around flat bends, tees, crosses & reducers. Tray fitting dividers are available to suit all cable tray sections.





Part Number	Dimensions mm			
	L	H	F	T
HR/DIV/FLO.6/○	600	47	20	1

○= Select a Finish & Material

Finishes & Materials: GA SS GX GK

Supplied with: x0

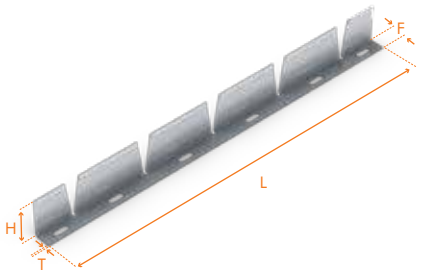
Tray fitting dividers are not supplied with fixings (3 fixings required per fitting divider).

Recommended fixings – M6 x 12 pan head screw and M6 nut (plus M6 flat washer for stainless steel). Consult our Sales Team for details.

Tray Riser Divider

Ref. DIV/VR

Tray riser dividers are available for cable segregation and separation purposes on risers. Tray riser dividers are available to suit all cable tray sections and are supplied as variable riser dividers to suit both inside and outside riser fittings.



Part Number	Dimensions mm			
	L	H	F	T
HR/DIV/VR/○	465	47	20	1

○= Select a Finish & Material

Finishes & Materials:

Supplied with:

Tray riser dividers are not supplied with fixings (3 fixings required per fitting divider).

Recommended fixings – M6 x 12 pan head screw and M6 nut (plus M6 flat washer for stainless steel). Consult our Sales Team for details.

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LEAGUE OF LADDERS

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VANTRUNK

VANTRUNK CABLE-TRAY

COVERS

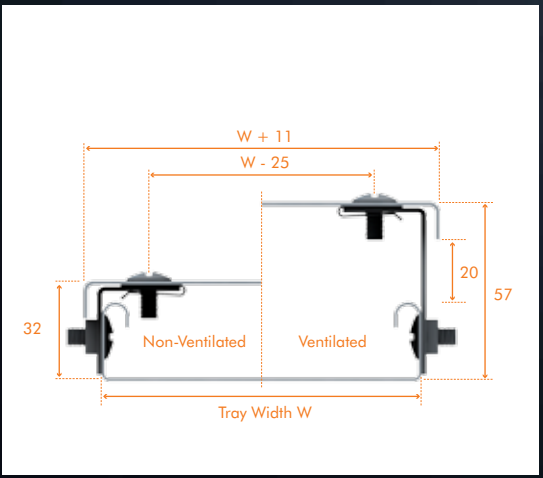
The Vantrunk cable tray range is complemented by an extensive range of covers. Covers are available to suit the Vantrunk medium duty return flange and Vantrunk heavy duty return flange cable tray systems.

Covers are used with cable tray to provide mechanical and environmental protection for cables and other items installed on the cable tray.

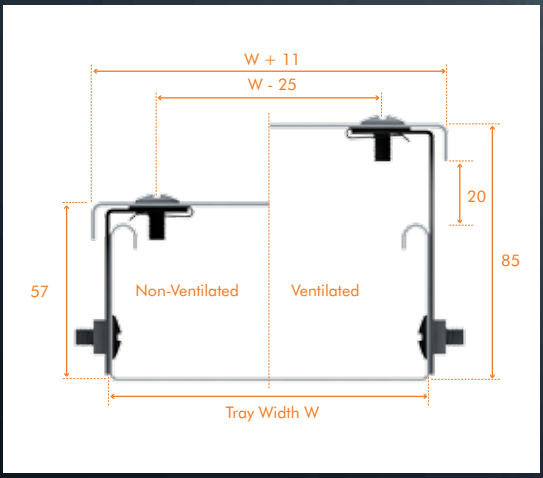
Covers can be installed as either closed (non-ventilated, plain, close-fitting) or ventilated (plain raised cover) depending on the type of cover fixing kit supplied with each cover.

Covers for straight cable tray are available in non-standard gauges to suit particular site installation requirements. Consult our Sales Team for details. Ventilated covers for Vantrunk medium duty return flange cable tray have a ventilation gap of 21mm. Ventilated covers for Vantrunk heavy duty return flange cable tray have a ventilation gap of 24mm.

Medium Duty Cable Tray Covers



Heavy Duty Cable Tray Covers



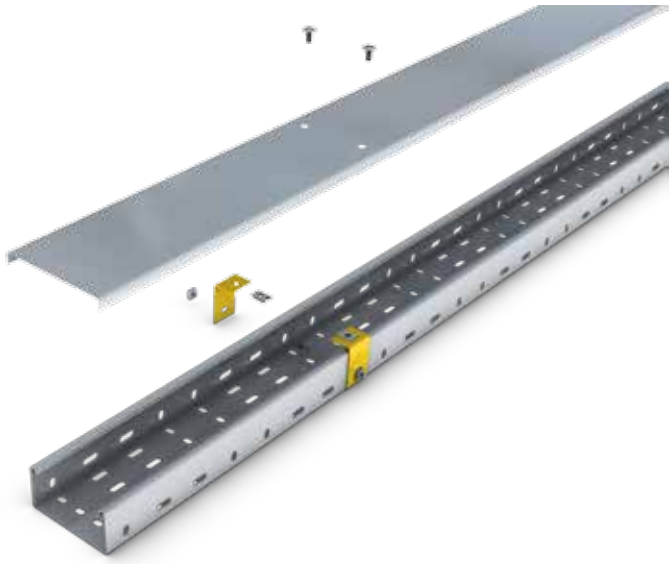
ACCREDITED TO THE FOLLOWING STANDARD

CE

Cover Fixing Kits

Vantrunk cable tray covers are supplied complete with all necessary fixing kits. Each fixing kit comprises of a preformed mounting bracket, a corrosion resistant M6 spire nut, two M6 screws and one M6 nut.

The general method of assembly for the Vantrunk cable tray cover is shown in the following image. This method is common to both medium and heavy duty cable trays and to cable tray fittings.

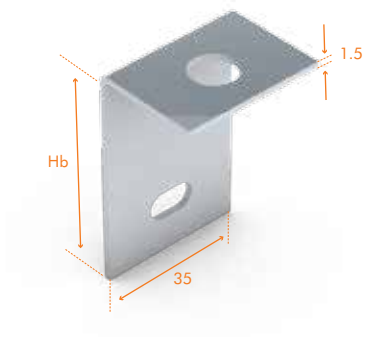


Covers for straight cable tray and cable tray fittings are supplied with the appropriate number of cover fixing kits as follows:

Tray & Fitting Type	Width	
	50mm to 150mm	200mm to 300mm
Straight Tray	6	6
90° Flat Elbows	3	4
60° Flat Elbows	3	4
45° Flat Elbows	3	3
30° Flat Elbows	3	3
Inside Risers	4	4
Outside Risers	4	4
Equal Tees	3	4
Unequal Tees *	3	4
Equal Crosses	4	4
Reducers	4	4

* Stainless Steel and Silicon Rich Steel weight conversion factors please refer to the Cable Tray Technical Section.

Each cover fixing kit is supplied with the appropriate cover mounting bracket for either a non-ventilated cover or ventilated cover based on the part number ordered. Dimensions for the cover mounting brackets are as follows:



Cover Type	Bracket Height Hb mm
Medium duty closed covers	28
Medium duty ventilated covers	53
Heavy duty closed covers	53
Heavy duty ventilated covers	78

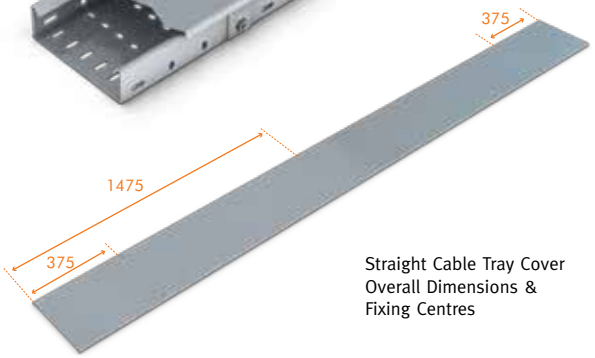
Straight Tray Covers

Ref. CC/SL3 or CL/SL3

Vantrunk straight tray covers are 3m in length and are available in widths of 50mm to 900mm as standard. Covers are common for both closed and ventilated applications.

Straight Cable Tray
Ventilated (Raised) Cover

Straight Cable Tray Closed
(Non-Ventilated) Cover



Straight Cable Tray Cover
Overall Dimensions &
Fixing Centres

Tray Width mm	Cover Width Wc mm	Height Hc mm	Gauge T mm	Weight kg
50	61	11.9	0.9	2.51
75	86	11.9	0.9	3.17
100	111	11.9	0.9	3.92
150	161	11.9	0.9	5.43
200	211	11.9	0.9	6.74
225	236	11.9	0.9	7.70
300	311	12.2	0.9	9.96

Weights shown are for standard hot dip galvanised finish only, for Stainless Steel & Silicon Rich Steel weight conversion factors please refer to the Cable Tray technical section.

Cable Tray Fitting Covers

Ref. CC/Fitting Type or CC/Fitting Type

Vantrunk cable tray fitting covers are available in widths of 50mm to 900mm as standard. Covers are common for both closed and ventilated applications.

Order details for all fittings except risers are as follows:

Tray Type / Cover Type / Tray Fitting Type / Width / (Radius) / Finish & Material.

Omit the radius detail if the standard radius fitting is required.

Order example:

HR/CV/FE30/300/GA	Vantrunk Heavy Duty Return Flange Cable Tray Ventilated Cover, 30° Flat Elbow, 300mm Wide, c/w Cover Fixing Kits, Hot Dip Galvanized Mild Steel.

Include the radius detail if a non-standard radius fitting is required.

Order example:

HR/CC/FE90/750/300/SS	Vantrunk Heavy Duty Return Flange Cable Tray Closed Cover, 90° Flat Elbow, 750mm Wide, 300mm Radius, c/w Cover Fixing Kits, Stainless Steel (316 Grade).

Covers for inside and outside riser fittings are supplied pre-formed to angles of 30°, 45°, 60° or 90° to match the angle of the riser.

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VANTRUNK CABLE-TRAY

TECHNICAL DATA

This compilation of technical data is intended to supply essential information relating to cable tray systems and to aid in the selection of the correct Vantrunk cable tray system. This will ensure that the specified cable tray installation is adequately protected against corrosion and has suitable strength & rigidity to provide reliable support at minimum installed cost.

Our Design Team is available to answer any questions relating to particular site requirements which may not be answered in the following sections.

Contents

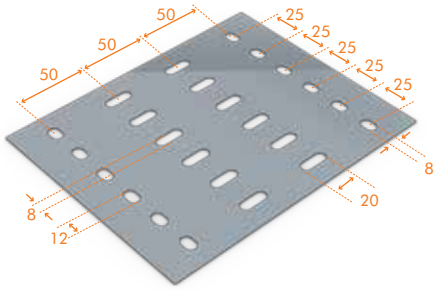
ACCREDITED TO THE FOLLOWING STANDARD

CE

1. GENERAL INFORMATION

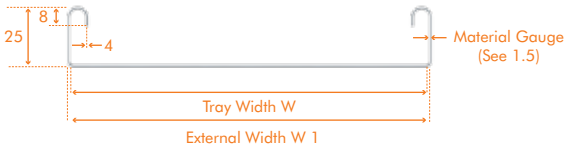
1.1 Slot Patterns

Details of the slot patterns for the Vantrunk cable tray system are given in the following diagram. These slot patterns are common for each Vantrunk cable tray type, irrespective of material gauge and finish.



1.2 Profiles

Heavy Duty Return Flange



Medium Duty Return Flange

1.3 Side Wall Heights

The Vantrunk cable tray range is available with the following side wall heights.

Side Wall Heights for Vantrunk Cable Tray

Tray & Fitting Type	Width mm	Side Wall Height mm
Medium Duty Return Flange	50 to 900	25
		30
		35
		40
		45
		50
		55
		60
		65
		70
		75
		80
Heavy Duty Return Flange	50 to 900	85
		90
		95
		100
		105
		110
		115
		120
		125
		130
		135
		140
		145
		150

1.4 Cable Tray Fitting Radius

Vantrunk cable tray fittings are available with the following standard radii.

Standard Radius For Cable Tray Fittings

Tray Width (mm)	Flat Elbows, Tees & Crosses (mm)	Inside & Outside Risers (mm)	
		MR	HR
50	75	150	300
75			
100			
150			
200	150	300	
225			
300			
450			
600			
750			
900			

All Vantrunk cable tray fittings are available to order with radii of 300mm, 450mm & 600mm. Those cable tray fittings which have a standard radius of 75mm are also available to order with a radius of 150mm. Consult our Sales Team for details.

1.5 Material Gauges

The standard range of material gauges for the Vantrunk cable tray & fittings have been determined by providing the most cost effective and efficient gauge for each material type to suit the designed application of each of Vantrunk cable tray system types.

The following table shows the standard material gauges for each width and type of Vantrunk cable tray system in a number of finishes. Consult our Design Team for gauge details for other materials & finishes.

Material Gauges

Tray Type	Width	Hot Dip Galvanized Mild Steel (GA)	Stainless Steel (SS)	Hot Dip Galvanized Silicon Rich Steel (GX)
MR	50	0.9	0.9	1.5
	75			
	100			
	150			
	200			
	225			
	300	1.2		
	450	1.5	1.2	
	600			
	750		1.5	
	900			
HR	50	0.9	0.9	1.5
	75			
	100			
	150			
	200	1.2	1.0	
	225			
	300			
	450	1.5	1.2	
	600			
	750	2.0	1.5	
	900			

Tray Type	Width	Hot Dip Galvanized Mild Steel (GA)	Stainless Steel (SS)	Hot Dip Galvanized Silicon Rich Steel (GX)
Covers	50	0.9	0.9	1.5
	75			
	100			
	150			
	200			
	225			
	300			
	450	1.2	1.2	
	600			
	750	1.5	1.5	
	900			

The standard material gauges are supplied for each tray and fitting type & width unless otherwise specified. To order a non-standard gauge, suffix the part number with the required gauge in millimeters.

Consult our Design Team for guidance on the appropriate selection of non-standard material gauge combinations. Weights, where quoted in the catalogue, are for the standard gauge mild steel/hot dip galvanized item. The following correction factor should be used to determine the weight for the corresponding item in an alternative gauge and finish.

As an example:
A heavy duty return flange cable 90° flat bend, 600mm wide, hot dip galvanized finish in standard 2.0mm gauge weights 9.56kg. Equivalent weight of the stainless steel item in 2.0mm gauge = 9.56kg x 0.96 = 9.18kg.

Material & Gauge Correction Factor

Standard Gauge	Required Gauge	Hot Dip Galvanized Mild Steel (GA)	Stainless Steel (SS)	Hot Dip Galvanized Silicon Rich, Steel (GX)
0.9	0.9	0.92	0.94	1.08
	1.0	1.02	1.04	1.20
	1.2	1.24	1.26	1.42
	1.5	1.58	1.60	1.76
	2.0	2.10	2.13	2.35
1.0	0.9	0.83	0.84	1.08
	1.0	0.92	0.94	1.20
	1.2	1.12	1.14	1.42
	1.5	1.42	1.44	1.76
	2.0	1.89	1.92	2.35
1.2	0.9	0.69	0.70	0.81
	1.0	0.77	0.78	0.90
	1.2	0.93	0.95	1.07
	1.5	1.18	1.20	1.32
	2.0	1.57	1.60	1.76
1.5	0.9	0.55	0.56	0.65
	1.0	0.61	0.62	0.72
	1.2	0.75	0.76	0.85
	1.5	0.95	0.96	1.05
	2.0	1.26	1.28	1.41
2.0	0.9	0.41	0.42	0.49
	1.0	0.46	0.47	0.54
	1.2	0.56	0.57	0.64
	1.5	0.71	0.72	0.79
	2.0	0.94	0.96	1.06

Consult our Technical Team for other material & gauge combinations.

› 1.6 Recommended number of fixings of cable tray fittings

Vantrunk cable tray fittings have integral jointing strips for connecting to straight lengths and for connecting cable tray fittings to cable tray fittings. The cable tray fixing set comprises of an M6 x 12 screw and an M6 nut (plus an M6 flat washer for stainless steel fixings).

Cable Tray Fixing Sets

Part Number	Description	
Hot Dip Galvanized Cable Tray		
M6x12RNB	M6 x 12 Mushroom Head Bolt M6 Square Nut	
Stainless Steel		
SSM6x12PNW	M6 x 12 Pan Head Screw M6 Flat Washer M6 Hex Nut	

The following table gives the recommended number of fixings for each type of cable tray straight length, fish plate coupler & cable tray fitting.

Recommended Number of Fixings for Cable Tray

Item	Width mm	Tray Type	
		Medium Duty Return Flange	Heavy Duty Return Flange
Straight Lengths	50 to 150	Fixings included with couplers	Fixings included with couplers
	200		
	225		
	300		
	450		
	600		
	750		
	900		
Fish Plate Couplers	50 to 150	4	4
	200	6	6
	225	6	6
	300	6	6
	450	8	8
	600	10	10
	750	12	12
	900	16	16
Flat Elbows Variable Risers Inside/ Outside Risers	50	4	4
	200	5	5
	225	5	5
	300	5	5
	450	6	6
	600	7	7
	750	8	8
	900	10	10
Equal Tees Unequal* Tees	50 to 150	8	8
	225	10	10
	225	10	10
	300	10	10
	450	12	12
	600	14	14
	750	16	16
	900	20	20
Crosses	50 to 150	12	12
	200	15	15
	225	15	15
	300	15	15
	450	18	18
	600	21	21
	750	24	24
	900	30	30
Reducers*	75 to 150	4	4
	200	5	5
	225	5	5
	300	5	5
	450	6	6
	600	7	7
	750	8	8
	900	10	10

*Use largest width to determine the required number of fixings

1.7 Perforation Base Area

Vantrunk straight cable tray has the following perforation base area:

Perforation Base Area for Vantrunk Cable Tray

Tray Type	Perforation Base Area	Classification to BS EN 61537
Medium Duty Return Flange	9.14%	B
Heavy Duty Return Flange	9.14%	B

Consult our Design Team for perforation base area classifications for Vantrunk cable tray fittings.

1.8 Cross-sectional Area

The Vantrunk cable tray has the following cross-sectional areas (CSA):

Cross-sectional Area for Vantrunk Cable Tray

Tray Type	Width	CSA mm²
Medium Duty Return Flange	50	1040
	75	1628
	100	2215
	150	3390
	200	4565
	225	5153
	300	6915
	450	10440
	600	13965
	750	17490
	900	21015
Heavy Duty Return Flange	50	2290
	75	3503
	100	4715
	150	7140
	200	9565
	225	10778
	300	14415
	450	21690
	600	28965
	750	36240
	900	43515

CSA information is based on standard gauges in a hot dip galvanized finish. Consult our Design Team for other gauges and materials.

The cross sectional areas given in the table above exclude return flanges where appropriate – see the following illustration for the cross section which is included as part of the area calculation.

Consult our Design Team for cross-sectional area information for Vantrunk cable tray fittings.

1.9 Vantrunk Cable Tray Specification

The following is a typical specification for a cable tray system which incorporates the key features of the Vantrunk cable tray system.

1 The cable tray system shall comprise a perforated base with longitudinal upward facing side walls. Medium duty and heavy duty cable tray shall have returned flanges on the side walls for improved strength.

2 The profile of the cable tray straight lengths shall remain constant for the straight cable tray and shall be compatible with that of the matching cable tray fittings.

3 The inside of the cable tray shall present a smooth surface to allow for easier cable pulling and to minimise the opportunities for damage to the cable insulation.

4 The cable tray side walls shall have an overall height of:

For medium duty return flange cable tray:
25mm for all tray widths.

For heavy duty return flange cable tray:
50mm (or required side wall height) for all tray widths.

5 The cable tray shall have a width of 50mm, 75mm 100mm, 150mm, 225mm, 300mm, 450mm, 600mm, 750mm and 900mm as required. The width shall be measured internally between the side walls.

6 The cable tray shall have a minimum thickness as follows for hot dip galvanised finish, other finishes consult our sales team:

For medium duty return flange cable tray:
0.9mm for tray of widths 50mm to 225mm,
1.2mm for tray of width 300mm (1.0mm for pre-galvanized and stainless steel)
1.5mm for tray of widths 450mm to 900mm.

For heavy duty return flange cable tray:
0.9mm for tray of widths 50mm to 150mm,
1.2mm for tray of widths 225mm and 300mm
1.5mm for tray of width 450mm
2.0mm for tray of widths 600mm to 900mm (1.5mm for width of 600mm in pre-galvanized and stainless steel).

For silicon rich, deep galvanized tray – all types:
1.5mm for tray of width 50mm to 450mm
2.0mm for tray of widths 600mm to 900mm.

7 Straight cable tray shall be fully slotted with longitudinal slots of size 20mm x 8mm and transverse slots of size 12mm x 8mm. The slots shall be pitched at 25mm centres across the width of the cable tray and at 50mm centres along the length of the cable tray.

8 Straight cable tray shall have a length of 3000mm.

9 Cable tray fittings shall be suitable slotted to match the slot pattern in the straight cable tray and shall have integral joints to facilitate connection to straight tray lengths and to other cable tray fittings.

10 Cable tray flat bends shall have fixed angles of 90°, 60°, 45° and 30°.

11 Cable tray fittings (except risers) shall have a radius of 75mm for widths up to & including 150mm, & a radius of 150mm for widths of 225mm and above. Cable tray risers shall have a radius of 150mm for widths up to & including 150mm, & a radius of 300mm for widths of 225mm & above.

12 Cable tray risers shall be of a variable angle type to facilitate on-site adjustment from 0° to a minimum of 90° for widths up to & including 600mm, and shall be pre-formed to fixed angles of 90°, 60°, 45° and 30° for widths of 750mm and above.

13 The cable tray system shall be manufactured using:

For mild steel, hot dip galvanized finish:
mild steel grade DD11 to BS EN 10111 and shall be hot dip galvanized after manufacture to BS EN ISO 1461.

For stainless steel :
stainless steel grade 1.4404 (316 marine grade) to BS EN 10088.

For silicon rich, deep galvanized finish:
silicon-rich steel and shall be deep galvanized after manufacture to twice the coating thickness specified by BS EN ISO 1461.

14 Couplers for the cable tray system shall be either of flat bar type or profiled to match the profile of the cable tray. Couplers shall be secured using M6 x 12 fixings with smooth heads to minimise possible damage to cables.

2. INSTALLATION RECOMMENDATIONS

2.1 Loads

A correctly designed and specified cable tray installation should take into account the nature and extent of the loads which will be imposed on the cable tray system. These loads comprise of dead loads including the self-weight of the cable tray system, the weight of the cables and secondary equipment attached to the cable tray, imposed loads which occur during installation of the cable tray system and during cable pulling operations, and external loads such as wind, snow & ice.

Cable trays are often employed in locations where the wind speeds may cause considerable lateral loading and careful consideration must be given to design to ensure a satisfactory installation. An awareness of the worst possible climate conditions is necessary when specifying the correct Vantrunk cable tray system.

The load-deflection information given in 3.4 is based on static loading of the Vantrunk cable tray installation. This information does not take into account dynamic effects such as vibration, earthquake loading, etc.

In designing a cable tray installation it is good practice to allow at least a 20% excess capacity in a new installation for future expansion. Such a provision is of great economic advantage when there is a later need for additional cables.

2.2 Support Spacing

The space between the supports of a cable tray installation is referred to as the span. Supports for cable tray should, as far is practicable, be spaced so as to create the most economical load/span ratio to suit the capacity of the cable tray system.

This will give the most advantageous solution when considering procurement and installation costs. As a general rule of thumb, the load-carrying capability of the Vantrunk cable tray system increases as the span decreases, so a lighter duty cable tray system can be specified for shorter spans. Conversely, a heavier duty Vantrunk cable tray system will need to be specified as the span increases.

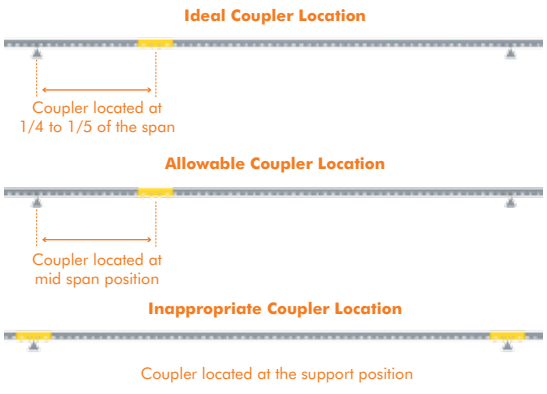
Vantrunk cable tray can provide cost-effective support for cable loads at spans of 0.5m to 3m depending on the type of cable tray system selected. For longer spans, or for carrying significantly increased cable loads, the Speedway cable ladder system should be used.
When considering support positions it should be remembered that it is necessary to support accessories when a change of direction takes place i.e. bends, tees, risers etc. This is to ensure that undue 'corner' cantilever reaction is minimised.

Recommendations for the location of supports for Vantrunk cable tray fittings are given in section 2.4.

2.3 Location of Couplers

The maximum bending moments acting on a cable tray run occur in the cable tray at the supports and at the mid span position. For this reason it is good practice to avoid locating couplers in a cable tray run either directly on supports or at the mid span position. It is also good practice to avoid locating couplers in the end span of a continuous beam installation as the bending moments in the end span are, for simple end support installations, much higher than those found in the intermediate spans. These limitations cannot always be achieved in a cable tray installation and are not a mandatory requirement for the Vantrunk cable tray coupling system where the loading information given in 3.3 is valid irrespective of the location of the couplers.

The ideal positions to locate the connections in a cable tray run are at approximately one fifth to one quarter of a span from the supports where the bending moments, and hence the stresses, are minimal. Positioning the couplers at the one fifth to one quarter span positions is of benefit during installation, assisting in alignment of the cable trays and allowing unhindered securing of the cable tray to the supports.



› 2.4 Support Locations for Cable Tray Fittings

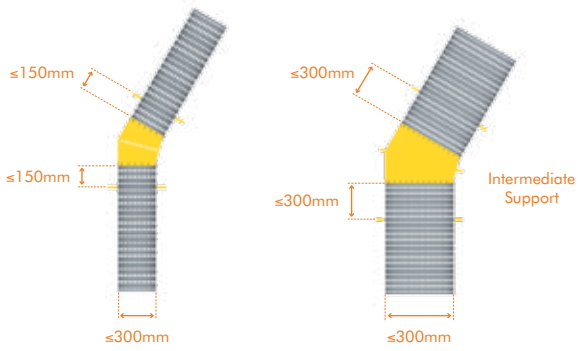
It is also important to consider support locations for cable tray fittings which are used as part of a cable tray installation to change direction, change width or create intersections.

Vantrunk cable tray fittings are designed to carry loads comparable to that for the straight cable tray but will require local support to avoid undue stresses being applied to the fittings.

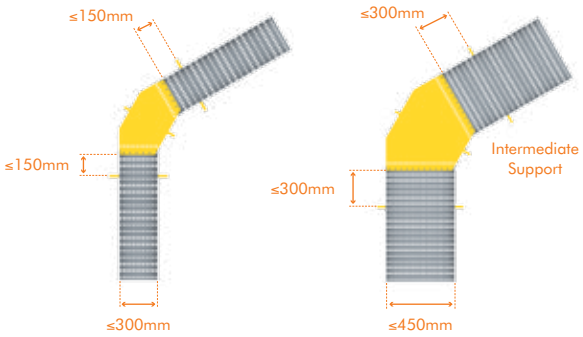
The following illustrations show the recommended support positions when installing Vantrunk cable tray fittings. The supports should be fully fixed to provide maximum support for the Vantrunk cable tray fitting.

› 2.4.1 Flat Elbows

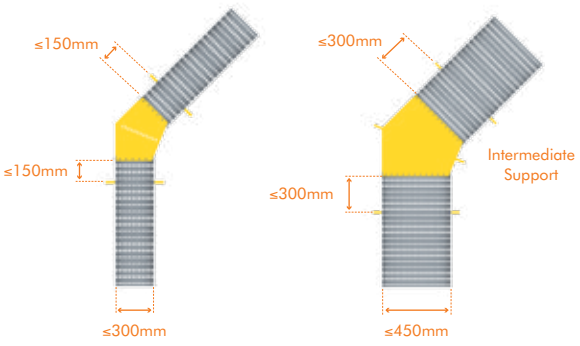
30° Flat Elbow
For 30° flat elbows, supports should be placed within 150mm of the fitting for widths up to 300mm. For fittings of width 450mm and above, supports should be placed within 300mm of the fitting and an intermediate support should be located radially at 15° across the centre of the fitting.



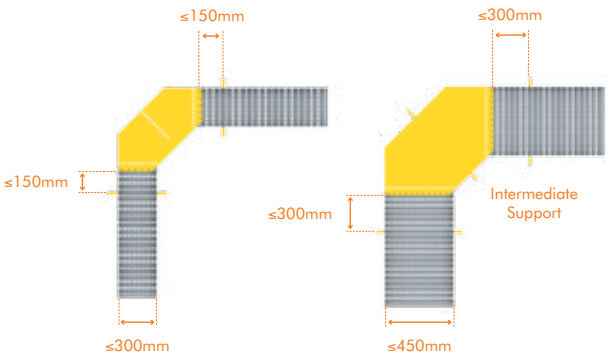
60° Flat Elbow
For 60° flat elbows, supports should be placed within 150mm of the fitting for widths up to 300mm. For fittings of width 450mm and above, supports should be placed within 300mm of the fitting and an intermediate support should be located radially at 30° across the centre of the fitting.



45° Flat Elbow
For 45° flat elbows, supports should be placed within 150mm of the fitting for widths up to 300mm. For fittings of width 450mm and above, supports should be placed within 300mm of the fitting and an intermediate support should be located radially at 22.5° across the centre of the fitting.

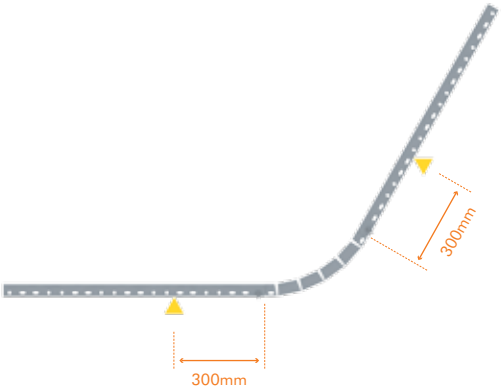


90° Flat Elbow
For 90° flat elbows, supports should be placed within 150mm of the fitting for widths up to 300mm. For fittings of width 450mm and above, supports should be placed within 300mm of the fitting and an intermediate support should be located radially at 45° across the centre of the fitting.

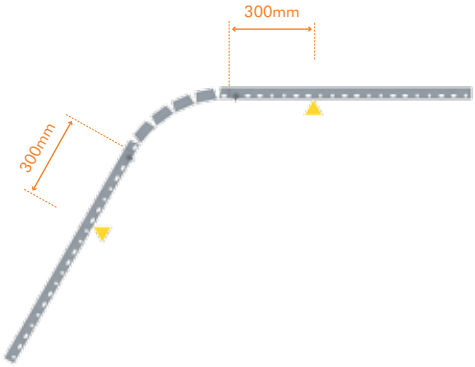


2.4.2 Internal & External Risers

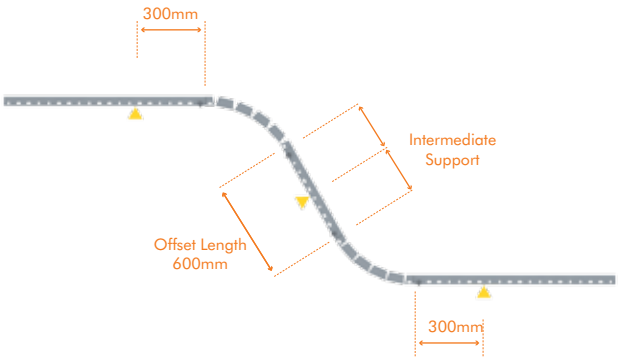
Internal Risers
For all widths of internal risers, supports should be placed within 300mm of the fitting.



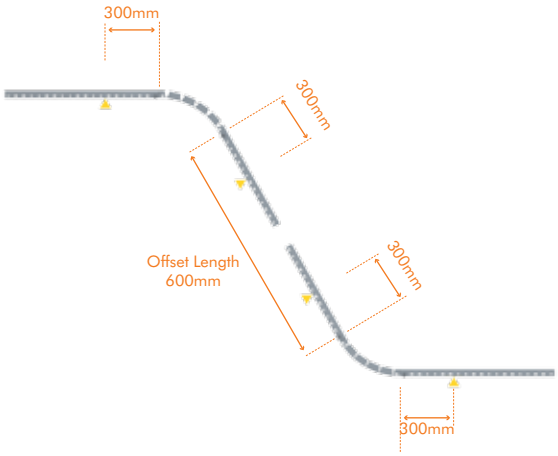
External Risers
For all widths of external risers, supports should be placed within 300mm of the fitting.



Internal & External Risers Used In Offset Arrangement
For internal & external risers used in an offset arrangement of length up to 600mm, supports should be located within 300mm of each end of the offset and centrally on the inclined cable tray.

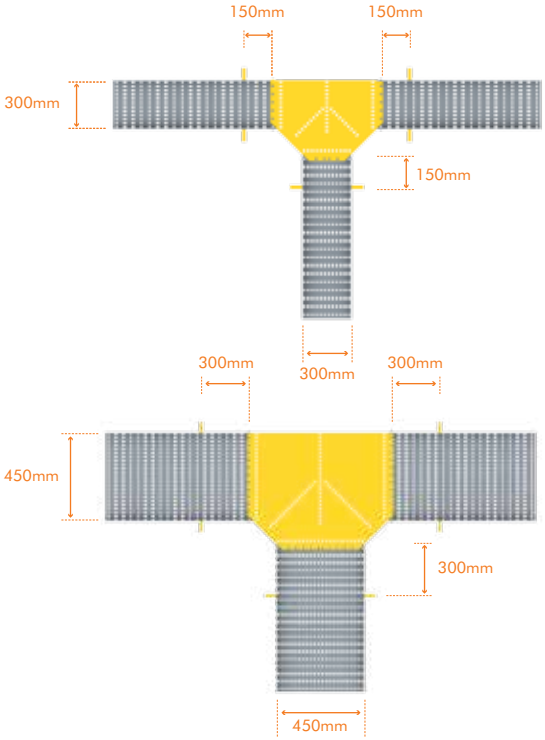


For internal & external risers used in an offset arrangement of length over 600mm, supports should be located within 300mm of each end of the internal & external risers. The inclined cable tray should be supported in accordance with the support recommendations for the straight cable tray run.



2.4.3 Equal & Unequal Tees

For equal and unequal tees, supports should be placed within 150mm of the fitting for main or branch widths up to 300mm. For fittings of main or branch width 450mm and above, supports should be placed within 300mm of the fitting.



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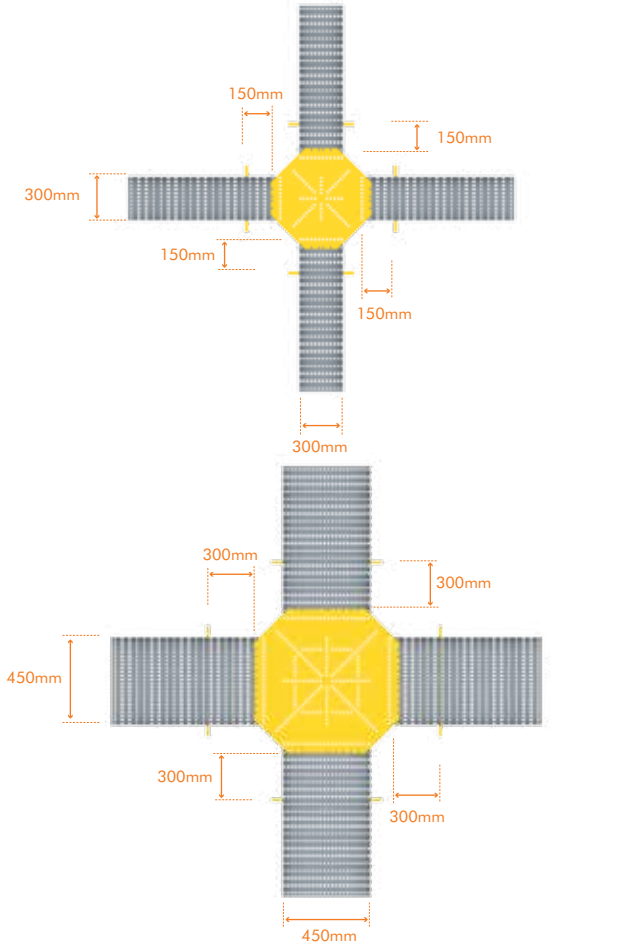
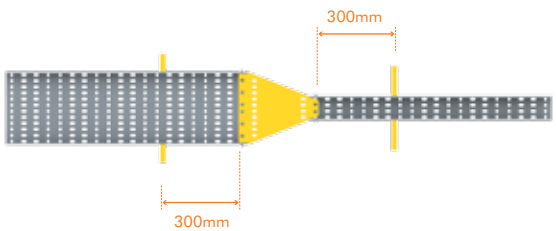
2.4.4 Crosses

For crosses, supports should be placed within 150mm of the fitting for main or branch widths up to 300mm. For fittings of main or branch width 450mm and above, supports should be placed within 300mm of the fitting.



2.4.5 Reducers

For all widths of reducers (straight, left & right), supports should be placed within 300mm of the fitting.

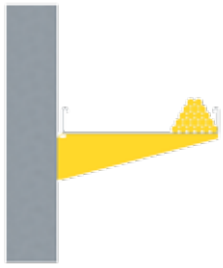


2.5 Loading of Vantrunk Cable Tray & Supports

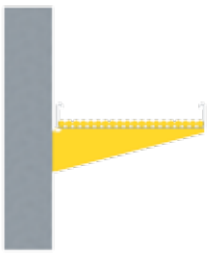
It is important that cable tray and cable tray supports are loaded in a symmetrical manner such that undue stresses in both the cable tray and the supports are kept to a minimum.

The safe working load figures for the Vantrunk cable tray and support accessories are based on a uniform loading within the Vantrunk cable tray and on the assumption that the correct length of support is used in each case.

Wherever possible, cable tray should be loaded in a uniform manner across the full width of the cable tray, particularly when the cable tray is loaded to the recommended load carrying capacity.

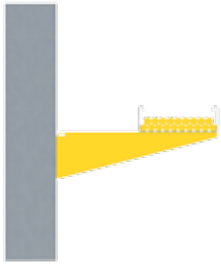


Avoid non-uniform loading

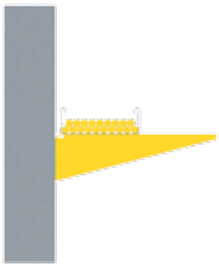


Load uniformly across the width of the cable tray

Where cantilever supports of additional length are used to support cable tray, care should be taken to position the cable tray as close to the backplate of the cantilever as the installation routing will allow.



Avoid unsymmetrical loading on cantilevers



Load cantilevers close to the backplate

Safe working load information for cable tray supports is given in the 'Supports' section of this catalogue.

For further information and guidance on the design and loading of supports please contact our Design Team.

2.6 Electrical Continuity

In tests conducted to verify the electrical continuity characteristics of the Vantrunk cable tray it has been established that the standard coupling system provides adequate electrical continuity, ensuring equipotential bonding and connection to earth.

The Vantrunk cable tray system has been tested for electrical continuity to BS EN 61537 (Section 11.1).

Details are given in the following table:

Material & Finish	Impedance across joint	Impedance per metre length
Hot Dip Galvanized (0.9mm)	2mΩ	2mΩ
Hot Dip Galvanized (1.5mm)	2mΩ	2mΩ
Stainless Steel (1.2mm)	2mΩ	2mΩ

BS EN 61357 requires a maximum impedance of 50mΩ across the coupled joint and a 5mΩ per metre length without a joint.

Earth continuity bonding straps (part number EBS/05) of cross sectional area 4 mm2 are available for use with Vantrunk cable tray where a non-conductive surface finish i.e. epoxy coated etc, has been specified or where the installation requires an additional means of bonding. Consult our Technical Team for more details.

2.7 Electromagnetic Compatibility (EMC)

In normal use Vantrunk cable tray can be considered to be passive in respect of electromagnetic influences, emission and immunity. When Vantrunk cable tray is installed as part of a wiring installation, the installation may emit or may be influenced by electromagnetic signals. The degree of influence will depend on the nature of the installation within its operating environment and the electrical equipment connected by the wiring. As a minimum precaution to minimise the occurrence of electromagnetic influences, power and data/signal cables should be run on separate cable routings or at least separated by means of dividers.

Our Design Team should be consulted for further information on electromagnetic compatibility issues.

2.8 Assembly Recommendations

Instructions for the correct assembly of Vantrunk cable tray straight lengths and fittings are given below.

Cable tray couplers are supplied with the correct number of fixing sets, each comprising of an M6 x 12 screw and an M6 nut (plus an M6 flat washer for stainless steel fixings). Refer to section 1.6 for details on the recommended number of fixings for cable tray fittings.

When utilising the standard flat bar coupler as an expansion coupler it will be necessary to order additional M6 nuts (4 per coupler).

2.8.1 Straight Cable Tray to Straight Cable Tray

1. Position the two straight cable trays onto the supporting structure.
2. For flat bar couplers, locate the cable tray flat bar coupler on the inside of the two abutting straight cable trays. For wrap over couplers, position the coupler on the outside of the two abutting straight cable trays.
3. Position the coupler across the joint between the two straight lengths. For flat bar couplers, align the slots in the coupler with those in the side wall of the cable tray. For wrap over couplers, align the slots in the coupler with those in the base of the cable tray.
4. From the inside of the cable tray insert the threaded portion of an M6 x 12 screw through one of the aligned slots.
5. Fit an M6 flat washer (where provided) and an M6 hex nut onto the protruding thread of the M6 x 12 screw.
6. Tighten the fixing assembly by hand.
7. Repeat for the remaining fixing sets.
8. Repeat the assembly procedure for the second coupler.
9. Fully secure the straight cable tray lengths to the supporting structure.
10. Check the alignment of the coupler and the abutting straight cable trays. Adjust as necessary to give a fair and true alignment.
11. Tighten the M6 hex nuts to a torque of 12Nm.
12. Where required, fit a fish plate coupler to the underside of the joint between the two straight cable trays.

› 2.8.2 Cable Tray Fitting to Straight Cable Tray

1. Position the straight cable tray and cable tray fitting onto the supporting structure and interlock the cable tray fitting into the straight cable tray.
2. Align the slots on the interlocked straight cable tray and cable tray fitting.
3. From the inside of the cable tray, insert the threaded portion of an M6 x 12 screw through one of the aligned slots.
4. Fit an M6 flat washer (where provided) and an M6 hex nut onto the protruding thread of the M6 x 12 screw.
5. Tighten the fixing assembly by hand.
6. Repeat for the remaining fixing sets.
7. Fully secure the straight cable tray and cable tray fitting to the supporting structure.
8. Check the alignment of the interlocked straight cable tray and cable tray fitting. Adjust as necessary to give a fair and true alignment.
9. Tighten the M6 hex nuts to a torque of 12Nm.

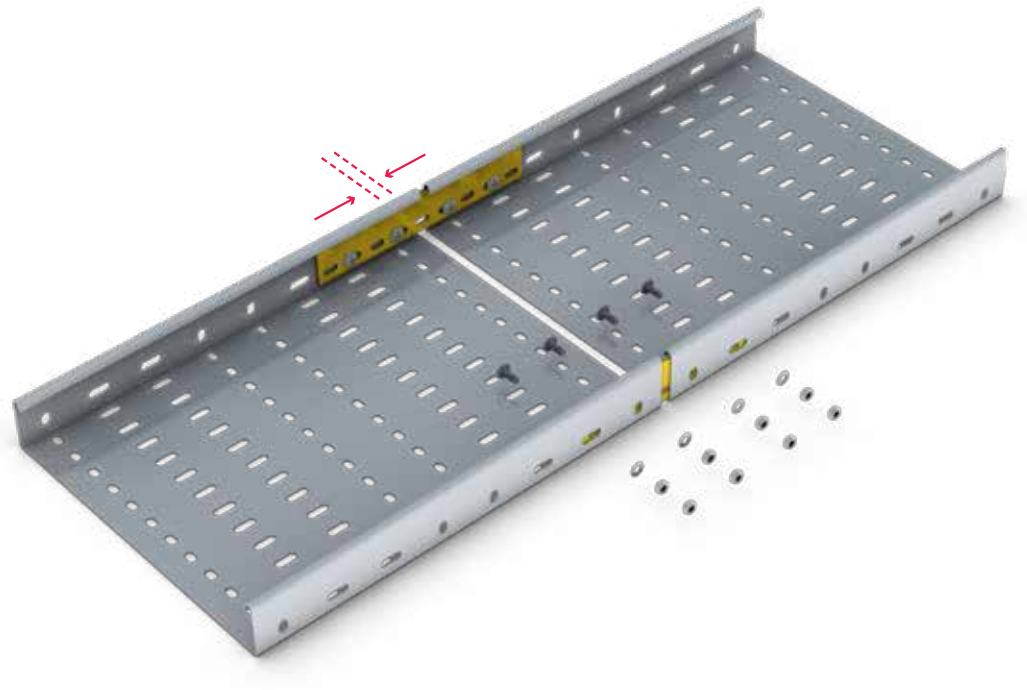
› 2.8.3 Cable Tray Fitting to Cable Tray Fitting

1. Position the two cable tray fittings onto the supporting structure, offsetting and interlocking the integral base & side wall coupling tabs.
2. Align the slots on the two cable tray fittings.
3. From the inside of the cable tray, insert the threaded portion of an M6 x 12 screw through one of the aligned slots.
4. Fit an M6 flat washer (where provided) and an M6 hex nut onto the protruding thread of the M6 x 12 screw.
5. Tighten the fixing assembly by hand.
6. Repeat for the remaining fixing sets.
7. Fully secure the cable tray fittings to the supporting structure.
8. Check the alignment of the abutting components. Adjust as necessary to give a fair and true alignment.
9. Tighten the M6 hex nuts to a torque of 12Nm.

› 2.9 Cable Tray Expansion Joint:

Refer to pg 247 for details on the spacing between expansion couplers and the required gap setting procedure at the time of installation.

1. Position the two straight cable trays onto the supporting structure.
2. Locate the cable tray flat bar coupler on the inside of the two abutting straight cable trays.
3. Position the coupler across the joint between the two straight lengths. Align the slots in the coupler with those in the side wall of the cable tray.
4. From the inside of the cable tray insert the threaded portion of an M6 x 16 screw through one of the aligned slots.
5. Fit an M6 flat washer (where provided) and an M6 hex nut onto the protruding thread of the M6 x 16 screw.
6. Tighten the fixing assembly by hand such that the fixing assembly is free to move within the slots (some light resistance to movement is preferable).
7. Repeat for the remaining fixing sets.
8. Repeat the assembly procedure for the second coupler.
9. Check the alignment of the coupler and the abutting straight cable trays. Adjust as necessary to give a fair and true alignment.
10. Check the setting gap between the straight cable trays and adjust as necessary.
11. Secure the straight cable trays to the supporting structure using nylon spacer pads and hold down brackets to permit movement relative to the structure.
12. Fit the second M6 nut onto the fixing assemblies. Lock the second M6 nut onto the first M6 nut. Check that the completed fixing assembly remains free to move within the aligned slots.
13. Tighten the 2nd M6 hex nut onto the 1sr M6 hex nut to a torque of 12Nm.
14. Ensure that the fixing assembly remains free to move within the slots, otherwise re-assembly as necessary.



3 LOADING INFORMATION

To enable the selection of the most appropriate Vantrunk cable tray for a particular installation it is necessary to consider the loads which must be supported and the distance between supports (the span). These loads are broadly classed as dead loads, imposed loads and point loads.

3.1 Dead Loads

Dead loads include the weight of any cables, pipes and secondary equipment carried on or installed on the cable tray plus the self weight of the cable tray and any component of the cable tray (covers, connectors, accessories, etc.).

Weight data for cables is readily available from the cable manufacturer or supplier and is usually quoted in terms of kilograms per metre (kg/m). The weight per metre from the cables (or pipes, etc) is the sum of the individual cable (or pipe, etc) weights.

Weight data for secondary equipment should also be readily available from the equipment manufacturer or supplier and is usually quoted in terms of kilograms (kg). The unit weight for the secondary equipment can be converted into an equivalent weight per metre by using the following formula:

$$\text{Equivalent weight per metre } Wm = \frac{2 \times \text{unit weight of equipment (kg)}}{\text{Span (m)}} \text{ kg/m}$$

For example, a secondary item of equipment with a weight of 12kg has an equivalent weight per metre Wm of 16kg/m for a span of 1.5m. This figure should be added to the sum of the individual cable weights (or pipe, etc). When determining the location of secondary items of equipment, care should be taken to either mount these items centrally across the cable tray or place these items adjacent to, or directly onto, the cable tray side walls and as close to the cable tray supports as the installation will allow.

The allowable loading figures given in the tables below include the self weight of the Vantrunk cable tray. The weight data for additional installed components (covers, mounting accessories, etc) for the Vantrunk cable tray system can be provided on request by our Design Team.

3.2 Point Loads

Point loads are often applied inadvertently to the cable tray during installation and during in-service inspection. Care should be exercised to avoid these undue point loads, particularly on light duty & medium duty cable trays which are not designed for this type of loading.

In situations where point loads are applied to heavy duty cable trays, an allowance can be made for the influence of point loads at the design stage when determining the total load to be carried by the Vantrunk cable tray system. When specifying a point load requirement at the design stage it should be noted that the value of the point load should be kept to a minimum as incorporating the point load will reduce the allowable cable load for the Vantrunk cable tray. Loading graphs which include the influence of a mid span point load are available on request.

Vantrunk cable tray is not intended to be used as a walkway and on no account should localised point loads be applied onto the bed of the cable tray. On those occasions where it is necessary to apply a point load care should be taken to apply the load evenly onto both side walls of the cable tray, preferably using a board or similar support to distribute the load over as long a section of the cable tray as possible.

Where doubt exists, further guidance should be sought from our Design Team.

3.3 Loading Graphs

When correctly mounted and secured, cable tray can be considered to be a 'continuous beam'. This implies that the cable tray run is regularly supported and that the cable trays at the extremities of the run are firmly anchored. The following tables are used to calculate the safe working load and have been verified by testing in accordance to BS EN 61537.

The load bearing capacity of a cable tray is limited by the lesser of the maximum allowable stress induced in the tray section or the maximum deflection acceptable between the supports. The maximum allowable stress is usually limited by the materials lower yield stress; this gives a safety factor of 1.7 against the ultimate tensile strength. Maximum deflection, (in the absence of a particular customer need) is not allowed to exceed 1/360th of the distance between supports (span).

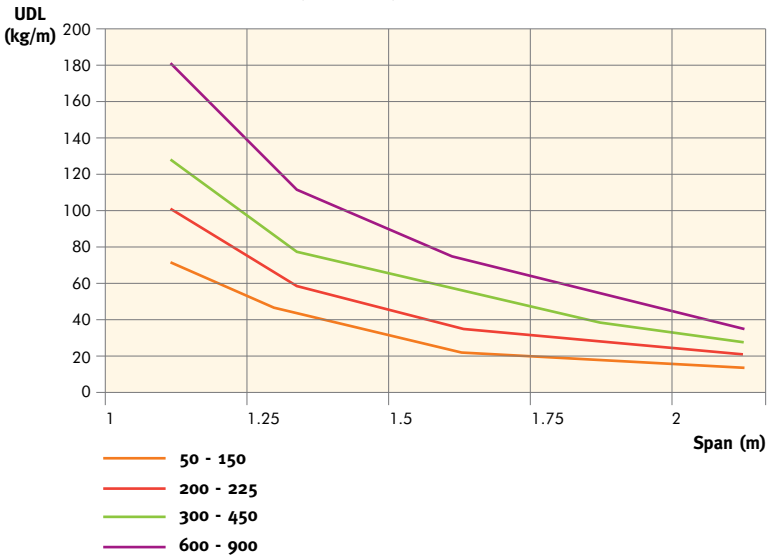
Although unusual, there may be occasions when it is difficult or indeed impossible to anchor the cable tray securely in position. Under these circumstances the tray is 'simply supported' and its load bearing ability is substantially reduced. As a rough guide maximum loads should be limited to two thirds of those shown in the loading tables and increased deflection values should be accepted for each span. The data given in the graphs is for tray installed as a continuous beam and allows for the weight of the tray itself.

Loading information is available for other gauges and for heavy duty cable trays with increased side wall heights – contact our Design Team for details

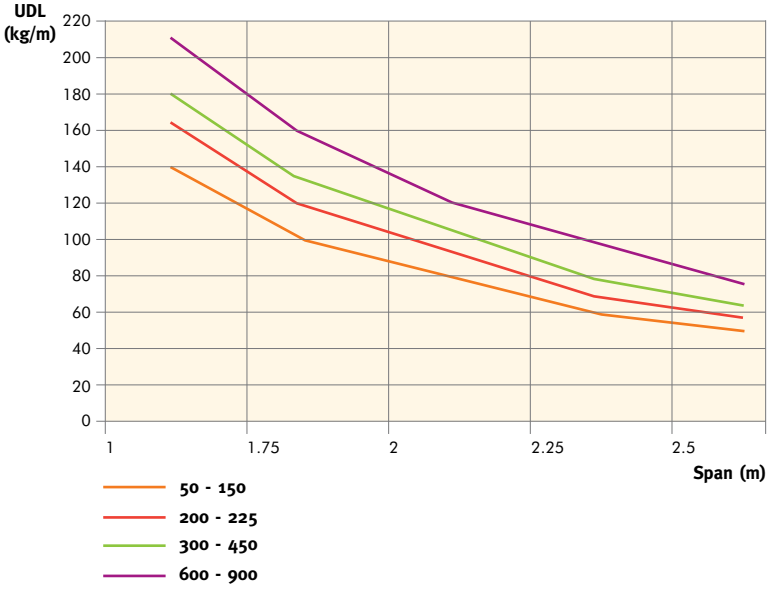
The Vantrunk cable tray system, components and accessories have been tested to BS EN ISO 61537:2002.

Further details can be provided by our Design Team.

Loading Data for Medium Duty Cable Tray GA



Loading Data for Heavy Duty Cable Tray GA



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