

SECTION 01: SPEEDWAY CABLE LADDER SYSTEM

The speedway cable ladder system represents a major advance in cable ladder design, providing faster & easier installation, greater cable fill capacity and total flexibility.



Quick Assembly
Cable Ladder



Flexible
Solutions

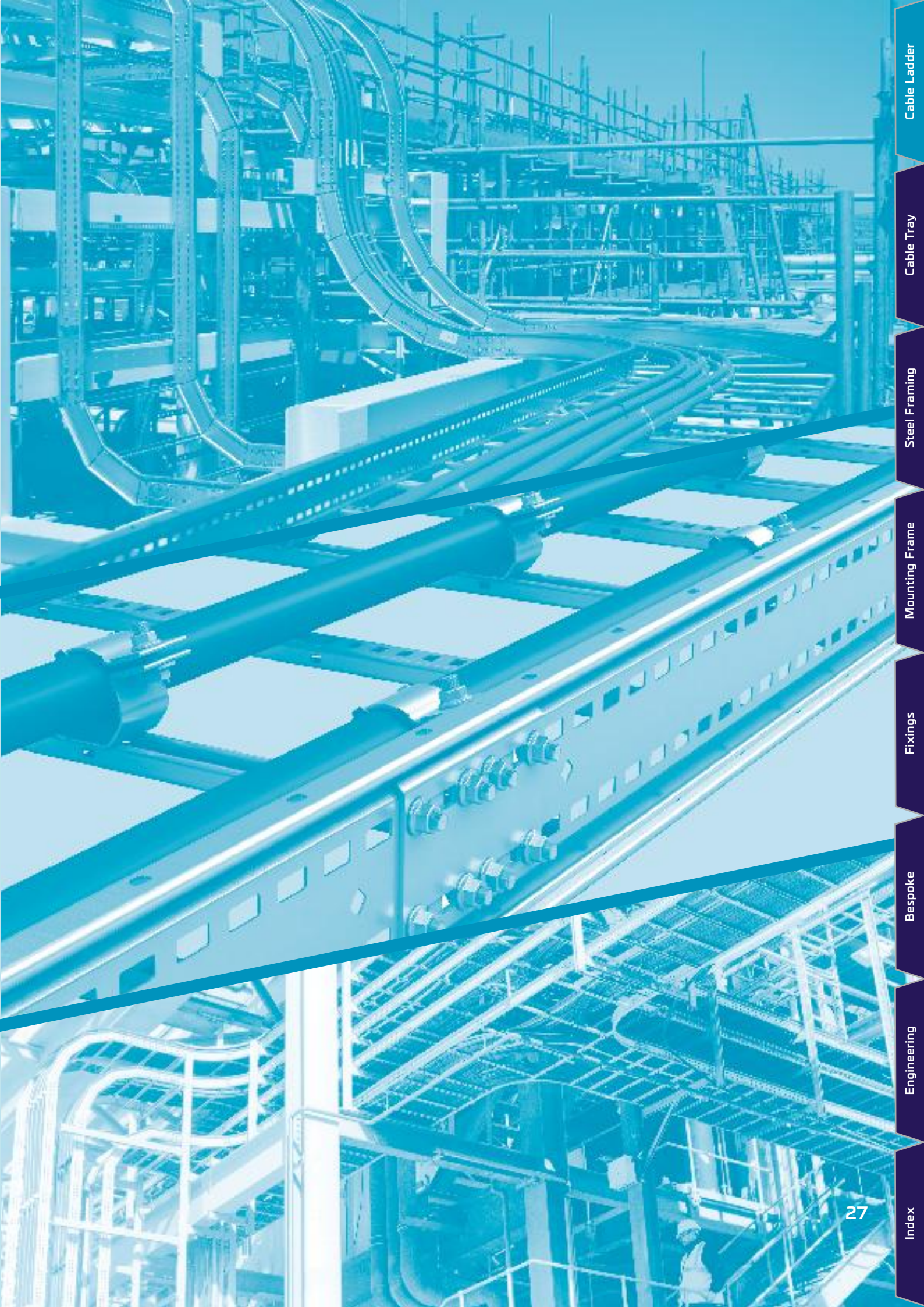


Rapid
Installation
Systems



Withstands
extreme
temperatures
[-50° to +50°C]





HOW TO ORDER

CODE SYSTEM EXPLAINED

The information given on these pages should be used as a guide when ordering Speedway Cable Ladder, Fittings and Accessories. For more detailed information and examples refer to the relevant page within the catalogue.

Speedway Straight Ladder

System Type	Ladder Length	Width	Finish & Material	Sidewall Gauge	Rung Gauge
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eg. SW6 – SL3 – 300 – GY – 2.0W – 2.0T

Speedway® SW6, Straight Ladder, 3000mm Long, 300mm Wide, Structural Steel, Hot Dip Galvanised - 2.0mm Wall, 2.0mm Rung

Speedway Fittings

System Type	Fitting Type	Width	Radius	Finish & Material	Sidewall Gauge	Rung Gauge
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eg. SW5 – FE30 – 900 – 600R – SS – 1.5W – 1.5T

Speedway® SW5 Flat Elbow 30°, 900mm Width, 600mm Radius, Grade 1.4404 (316L) Stainless Steel, P&P - 1.5mm Wall, 1.5mm Rung

Speedway Couplers

System Type	Coupler Type	Finish & Material
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eg. SW6 – CS – GX

Speedway® SW6, Straight Coupler, Silicon Rich Structural Steel, Deep Hot Dip Galvanised

Speedway Accessories

System Type	Accessory Type	Accessory Length	Finish & Material	Gauge
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eg. SW6 – DIV – SL1.5 – GA – 1.2

Speedway® SW6, Straight Ladder Divider, 1500mm Long, Mild Steel, Hot Dip Galvanised

Speedway Straight Ladder Covers

System Type	Cover Type	Cover Length	Width	Finish & Material	Gauge
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eg. SW – CC – SL1.5 – 300 – GA – 1.2

Speedway® SW Closed Cover, Straight, 1500mm Long, 300mm Wide, Hot Dip Galvanised

Speedway Fitting Covers

System Type	Cover Type	Fitting Type	Width	Radius	Finish & Material	Gauge
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eg. SW – CL – FE30 – 300 – 600R – SS – 1.0

Speedway® SW Louvered Cover, Flat Elbow 30°, 300mm Width, 600mm Radius, Grade 1.4404 (316L) Stainless

System Type (▲)

		Page
SW	Common to all Speedway systems	
SW4	Speedway SW4	33
SW5	Speedway SW5	34
SW6	Speedway SW6	35

Ladder Length

SL3	Straight ladder – 3m length
SL6	Straight ladder – 6m length

Fitting Type

		Page
FE	Flat Elbow	38
IR	Inside Riser	44
OR	Outside Riser	44
AR	Articulated Riser (add number of sections e.g. AR3 = 3 sections)	49
ET	Equal Tee	52
UT	Unequal Tee (include main width Wm & branch width Wb)	52
EC	Equal Cross	56
RS	Reducer Straight (include primary width Wp & secondary width Ws)	59
RL	Reducer Left (include primary width Wp & secondary width Ws)	60
RR	Reducer Right (include primary width Wp & secondary width Ws)	61

Width (standard)

150mm, 300mm, 450mm, 600mm, 750mm, 900mm & 1050mm

Radius (standard)

300mm, 450mm, 600mm, 750mm, 900mm, 1050mm & 1200mm

Coupler Type

		Page
CS	Coupler Straight	63
HAC	Horizontal Adjustable Coupler	65
VAC	Vertical Adjustable Coupler	66
SAC	Short Adjustable Coupler	68
LAC	Long Adjustable Coupler	68
FFC	Fitting to Fitting Coupler	69

Finish & Materials (●)

				
HOT DIPPED GALVANISED STRUCTURAL STEEL	DEEP GALVANISED STRUCTURAL STEEL	HOT DIPPED GALVANISED CARBON STEEL	DEEP GALVANISED SILICON RICH STRUCTURAL STEEL	MARINE GRADE STAINLESS STEEL

Details on the full range of standard Finishes and Materials are given in the Finish and Materials Section (page 23) and Engineering Data Section (page 210).

EXP	Expansion Coupler	70
SREC	Support Reduction Expansion Coupler	71

Accessory Type

		Page
EFC	External Flange Clamp	73
AFB	Adaptable Fixing Bracket	74
HDB	Hold Down Bracket	76
ASB	Angle Securing Bracket	77
SCB	Structural Connector Bracket	80
DOB	Drop Out Bracket	81
DIV-SL 1.5	Straight Ladder Divider (use system type)	82
DIV-FL 1.5	Fitting Divider (use system type)	82
DIV-RL 0.3	Riser Divider (use system type)	83
EP	End Plate (use system type & include width)	83
CDO	Cable Drop Out (include width)	84
PEC	Protective End Cap (use system type)	84
SMP	Speedway Mounting Plate (include width)	85
EBS-01	Earth Bonding Strap	85
JBP	Junction Box Plate (add type e.g. JBP02)	86
TCP	Tube Clamp Plate (add type e.g. TCP01)	87

Supports

		Page
HDC	Heavy Duty Cantilever	89
LTH	Ladder Trapeze Hanger	90

Cover Type

		Page
CC	Closed Cover	93
CL	Louvred Cover	93
CP	Peaked Cover	93

System type is SW unless indicated otherwise.

Further Guidance

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

UNIQUELY VANTRUNK

RUNGS

Rungs are alternately inverted to allow flexibility of cable restraint and suspension of equipment from underside.

SLOTTED SIDEWALLS

Fully slotted sidewalls which enables faster installation and reduces weight. Sidewall slots are located close to the centre line of the profile, therefore eliminating any weakness brought about when the slots are located near the base of the sidewall.

DRAIN HOLES

Drain holes are included in the Rungs and the top and bottom flanges of the Sidewalls.

COUPLING

Unique slotted sidewalls and coupler design allows universal coupling without the need for onsite drilling on cut lengths. The Speedway profile also Improves coupling by minimising slip at the joint.

LENGTHS

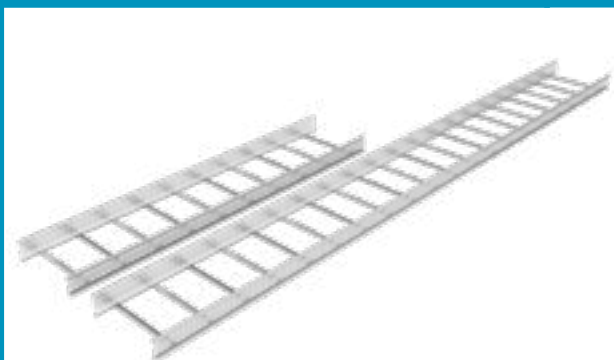
Available in 3m lengths as standard and in 6m Lengths as an option, which can provide a reduction in the number of supports & couplers required thereby reducing overall installation costs.

SPEEDWAY PROFILE

Unique profile featuring an offset web that:

- Maximises strength by acting similar to an I-Section
- Increases stability under loading
- Increases internal loading area by up to 7.5%
- Can reduce the number of supports required

STRAIGHT LENGTHS



- Straight lengths of ladder are available in both 3m and 6m lengths to suit project requirements.
- Using 6m Straight Ladder reduces the number of structural supports and couplers that are required whilst maintaining a high loading performance. These reductions contribute to cutting overall project costs and weight.

COVERS

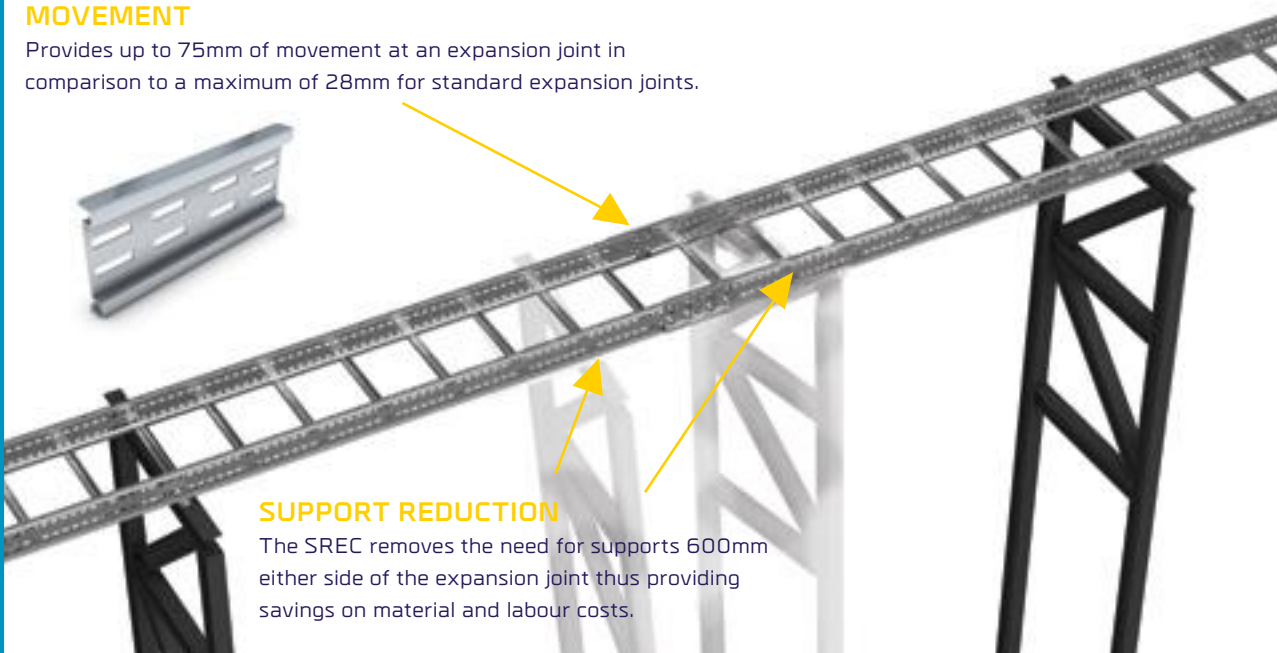


- Speedway covers are available in Peaked, Louvered and Closed (Non-Louvered)
- All Covers fit directly onto the cable ladder thus providing additional mechanical protection to cables whilst maintaining ventilation when required
- Speedway cover widths of 450mm and above come supplied complete with Bracing Bars to further enhance strength in high wind environments (including hurricane force winds) and to reduce potential damage from any on site temporary imposed loads

SUPPORT REDUCTION EXPANSION COUPLER

MOVEMENT

Provides up to 75mm of movement at an expansion joint in comparison to a maximum of 28mm for standard expansion joints.



SUPPORT REDUCTION

The SREC removes the need for supports 600mm either side of the expansion joint thus providing savings on material and labour costs.

STRAIGHT LADDER

Speedway Straight Cable Ladder is available in standard widths of 150mm, 300mm, 450mm, 600mm, 750mm and 900mm. Other widths from 100mm to 1500mm in 50mm increments are available to order. Ladders over 1050mm wide are only available in Heavy SW5 and Extra Heavy Duty SW6 systems.

Speedway Straight Cable Ladder is available in lengths of 3m and 6m. Unless otherwise specified 3m lengths are supplied as standard, 6m lengths are made to order.

All Speedway straight ladders are pre-punched with dedicated diamond earth bonding holes which facilitates earth continuity straps (thereby complying with European, IEC, and NEMA standards requirements) whilst maintaining a smooth cabling area through the use of the Vantrunk square shoulder round head bolt.

Speedway Cable Ladder sidewalls and rungs can be manufactured in either 1.5mm or 2.0mm material gauges. The supplied gauge combination is dependent

on the application and desired performance capabilities, please consult our Sales Team for further details.

Rung spacing on straight ladders is at 300mm centres. As standard the Speedway rung is orientated alternately inverted to allow for cable cleat spacing at 600mm centres. Other orientations such as rungs all facing up or all facing down are available to order.

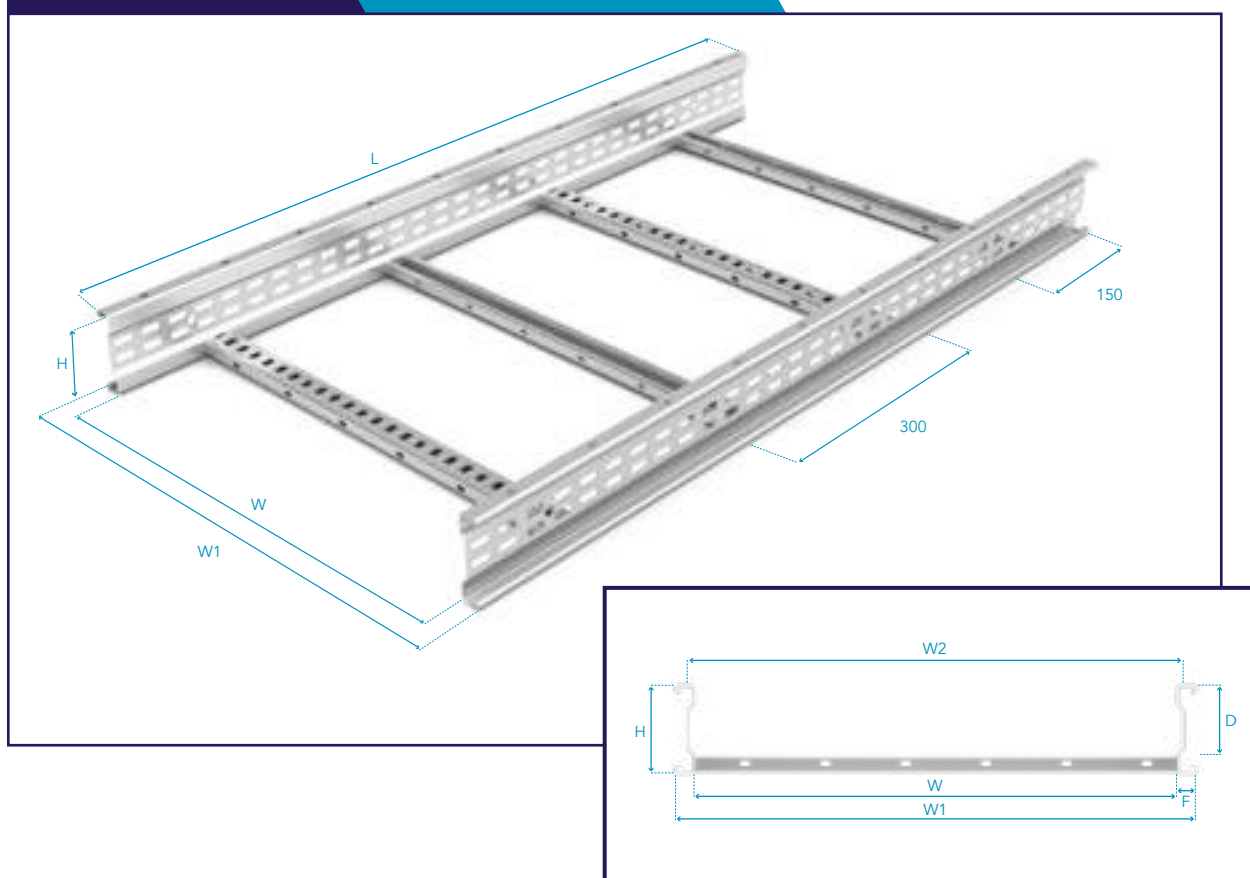
The Speedway Cable Ladder system has been independently tested and certified in accordance to BS EN & IEC 61537 and NEMA 20C, please contact our Sales team for further details.

Speedway SW4 Cable Ladder

Speedway 4 (SW4) Medium Duty Cable Ladder is manufactured in 3.0m lengths as standard with 6.0m lengths to order. The cable ladder is available in standard widths of 150mm, 300mm, 450mm, 600mm, 750mm and 900mm, widths of 100mm up to 1050mm, in 50mm increments, are available to order. Rung spacing is 300mm as standard.

System Type: SW4

SW4-SL LENGTH-WIDTH-O



Part Number	No. of Rungs	Dimensions (mm)				Weight (kg)
		W	W1	L	H	
SW4-SL3-150-O	10	150	200	3000	110	14.26
SW4-SL3-300-O		300	350			15.92
SW4-SL3-450-O		450	500			17.59
SW4-SL3-600-O		600	650			19.25
SW4-SL3-750-O		750	800			23.69
SW4-SL3-900-O		900	950			25.91

O = Select a Finish & Material

Weights shown are for standard hot dip galvanised finish only, for Stainless Steel and Silicon Rich Steel weight conversion factors please refer to the Engineering Data Section of our catalogue (Page 213).

Height	H	110mm
Loading Depth	D	85mm
Ladder Width	W	100mm to 1050mm
Maximum Internal Width	W2	W + 14mm
Overall Width	W1	W + 50mm
Flange Width	F	25mm

Finishes & Materials:



Supplied with:

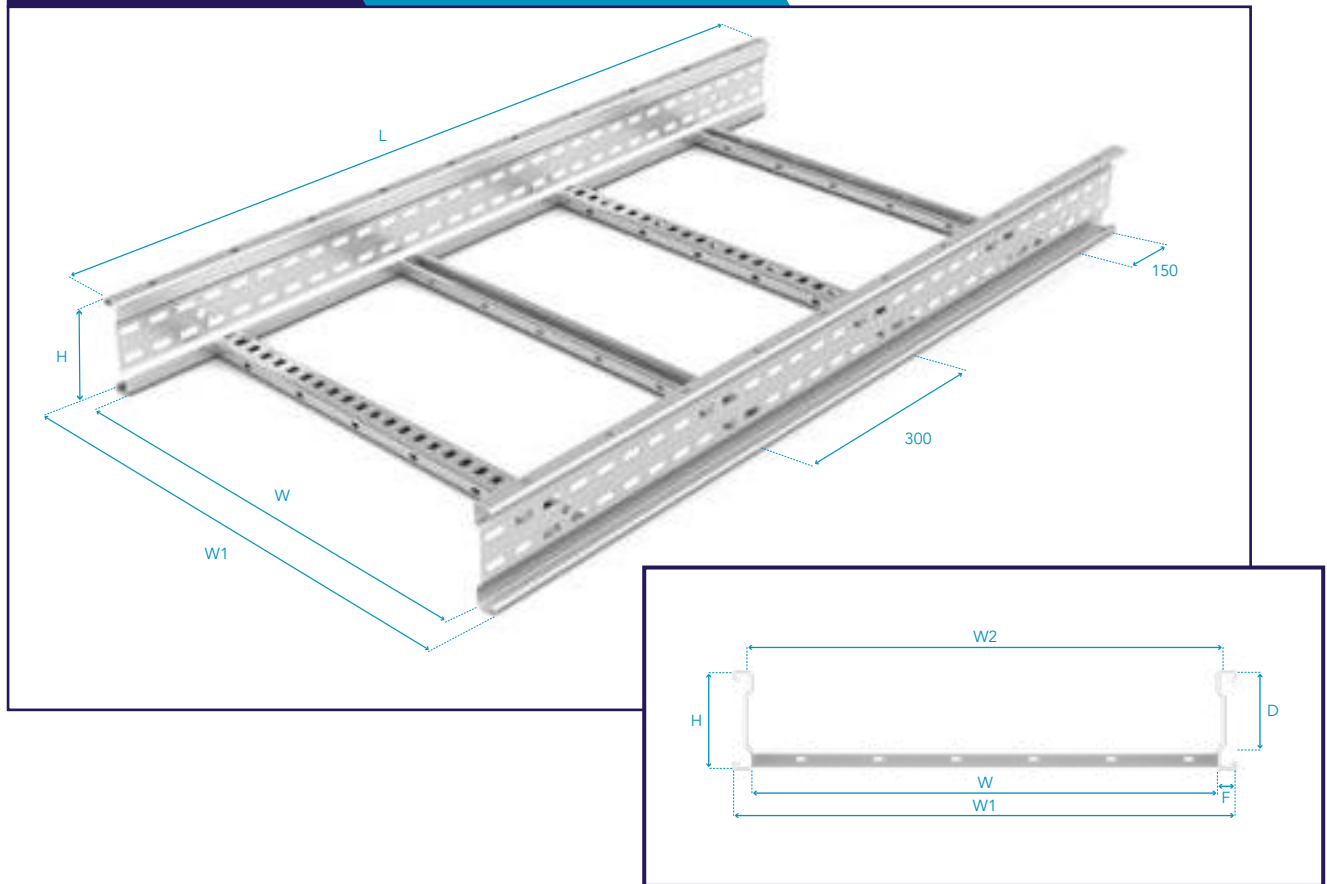
FIXING SETS x0

Speedway SW5 Cable Ladder

Speedway 5 (SW5) Heavy Duty Cable Ladder is manufactured in 3.0m lengths as standard with 6.0m lengths supplied to order. The cable ladder is available in standard widths of 150mm, 300mm, 450mm, 600mm, 750mm and 900mm, widths of 100mm up to 1500mm, in 50mm increments, are available to order. Rung spacing is 300mm as standard.

System Type: SW5

SW5-SL LENGTH-WIDTH-○



Part Number	No. of Rungs	Dimensions (mm)				Weight (kg)
		W	W1	L	H	
SW5-SL3-150-O	10	150	200	3000	125	15.3
SW5-SL3-300-O		300	350			16.96
SW5-SL3-450-O		450	500			18.63
SW5-SL3-600-O		600	650			20.29
SW5-SL3-750-O		750	800			24.73
SW5-SL3-900-O		900	950			26.95

○ = Select a Finish & Material

Weights shown are for standard hot dip galvanised finish only, for Stainless Steel and Silicon Rich Steel weight conversion factors please refer to the Engineering Data Section of our catalogue (Page 213).

Height	H	125mm
Loading Depth	D	100mm
Ladder Width	W	100mm to 1500mm
Maximum Internal Width	W2	W + 14mm
Overall Width	W1	W + 50mm
Flange Width	F	25mm

Finishes & Materials:



Supplied with:

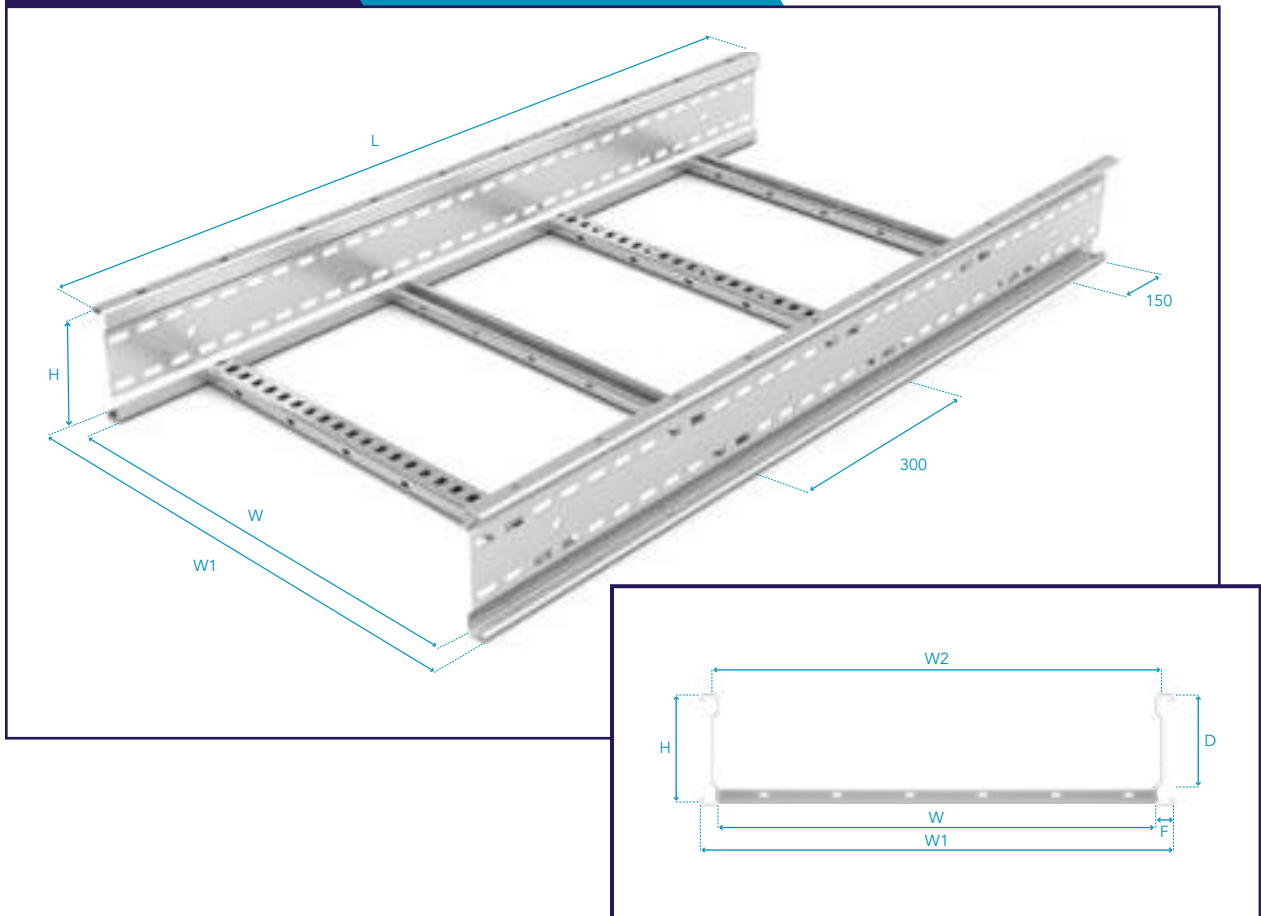
FIXING SETS x0

Speedway SW6 Cable Ladder

Speedway 6 (SW6) Extra Heavy Duty Cable Ladder is manufactured in 3.0m lengths as standard with 6.0m lengths supplied to order. The cable ladder is available in standard widths of 150mm, 300mm, 450mm, 600mm, 750mm and 900mm, widths of 100mm up to 1500mm, in 50mm increments, are available to order. Rung spacing is 300mm as standard.

System Type: SW6

SW6-SL LENGTH-WIDTH-O



Part Number	No. of Rungs	Dimensions (mm)				Weight (kg)
		W	W1	L	H	
SW6-SL3-150-O	10	150	200	3000	150	23.12
SW6-SL3-300-O		300	350			25.35
SW6-SL3-450-O		450	500			27.57
SW6-SL3-600-O		600	650			29.79
SW6-SL3-750-O		750	800			32.01
SW6-SL3-900-O		900	950			34.23

O = Select a Finish & Material

Weights shown are for standard hot dip galvanised finish only, for Stainless Steel and Silicon Rich Steel weight conversion factors please refer to the Engineering Data Section of our catalogue (Page 213).

Height	H	150mm
Loading Depth	D	125mm
Ladder Width	W	100mm to 1500mm
Maximum Internal Width	W2	W + 14mm
Overall Width	W1	W + 50mm
Flange Width	F	25mm

Finishes & Materials:



Supplied with:



FITTINGS

Vantrunk Speedway cable ladder fittings incorporate several features which enhance the systems ease of installation.

All Speedway fittings are manufactured with the Speedlok Integral Coupler, thereby removing the need for separate couplers and reducing the number of fixings required to connect the ladder and fitting and in turn reducing the ladder to fitting connection time by 67%. The substantial reduction in the number of fixings and reduction in the number of couplers required also helps to reduce top side weight in off-shore facilities.

As in the cable ladder side wall, the cable ladder fitting side wall has an offset central web to enhance stability when under load.

All radius sections in the Vantrunk Speedway range of fittings have a repeatable and true radius which eliminates the traditional "make it fit" approach during installation.

All Speedway fittings are pre-punched with dedicated diamond earth bonding holes which facilitates earth continuity straps (thereby complying with European, IEC, and NEMA standards requirements) whilst maintaining a smooth cabling area through the use of the Vantrunk square shoulder round head bolt.



Fitting to Fitting Coupler (FFC)

When joining one fitting to another to suit on-site installation requirements the use of a Fitting to Fitting Coupler (FFC) will be required. See Page 69 for further details.

Speedway Fittings

Speedway fittings are available in widths from 150mm to 900mm and in the case of Flat Elbows and Risers at angles of 30, 45, 60 and 90 degree as standard. Other widths between 100mm to 1500mm and radii, subject to cable ladder system type, are also available. The standard radii are 300mm, 450mm, 600mm, 750mm and 900mm.

All fittings are supplied with all necessary fixings for connecting fittings to straight ladder.

The rungs are orientated with the open face uppermost to suit the use of cleats and similar cable restraint devices. This allows compliance with current recommendations for cable restraint, especially where cables are used which have a high potential fault current level.

SPEEDLOK INTEGRAL COUPLER

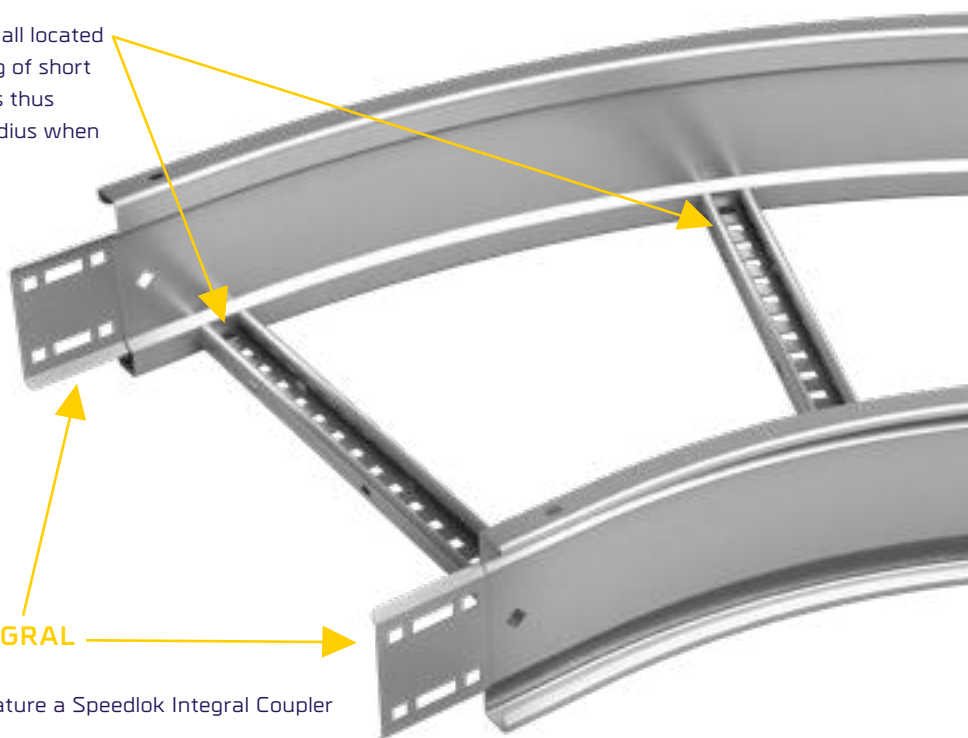
RUNGS

Rungs on fittings are all located face up to allow fixing of short circuit restraint cleats thus maintaining a true radius when changing direction.

SPEEDLOK INTEGRAL COUPLER

Speedway fittings feature a Speedlok Integral Coupler that:

- Eliminates the need for a separate coupler when connecting fittings to straight lengths
- Reduces the ladder to fitting installation time by 67%
- Decreases weight of installations by using less material in the coupler and also less fixings.



Part of the Rapid Installation System (RIS)

FLAT ELBOWS

Flat Elbows (FE) are designed to create fixed angular coplanar connections between horizontal cable runs (cable ladder installed in horizontal plane) and between vertical cable runs (cable ladder installed in vertical plane).

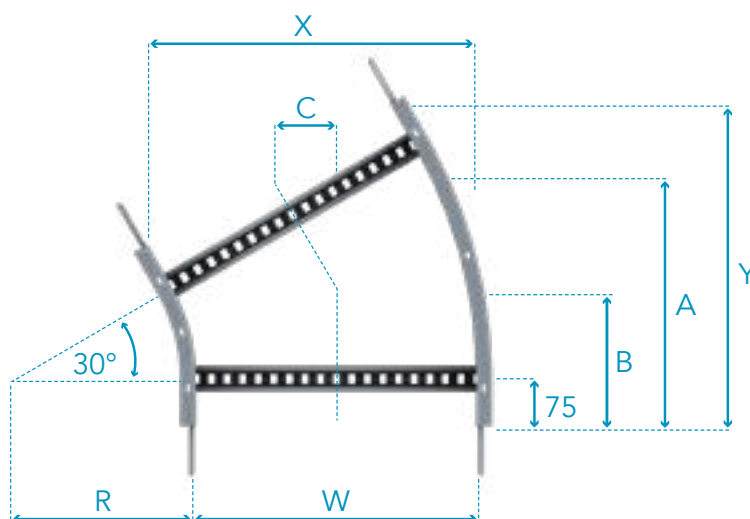
The rungs in the Speedway Flat Elbows are located radially at either 0° or at 7½° incremental angles (or multiples thereof) and are positioned to give a maximum linear distance of no more than 465mm between adjacent rungs on adjacent Speedway Cable Ladder and Speedway Cable Ladder Fittings when measured along the outer radius.



Speedway 30° Flat Elbows

Fitting Type: FE30

SW△-FE30-WIDTH-RADIUS-○



Part Number	No of Rungs	Dimensions (mm)							Weight (kg)		
		R	W	A	B	C	X	Y	SW4	SW5	SW6
SW△-FE30-150-300R-○	2	300	150	327	175	88	266	365	2.21	2.31	3.52
SW△-FE30-300-300R-○	2		300	365	196	98	416	440	2.73	2.84	4.27
SW△-FE30-450-300R-○	2		450	402	216	108	566	515	3.24	3.37	5
SW△-FE30-600-300R-○	2		600	440	236	118	716	590	3.76	3.9	5.75
SW△-FE30-750-300R-○	2		750	477	256	128	866	665	5.93	6.09	7.58
SW△-FE30-900-300R-○	3		900	515	276	138	1016	740	6.78	6.96	8.55
SW△-FE30-150-600R-○	2	600	150	477	256	128	306	515	2.93	3.09	4.69
SW△-FE30-300-600R-○	2		300	515	276	138	456	590	3.46	3.63	5.44
SW△-FE30-450-600R-○	2		450	552	296	148	606	665	4.46	4.65	6.83
SW△-FE30-600-600R-○	3		600	590	316	158	756	740	5.14	5.35	7.79
SW△-FE30-750-600R-○	3		750	627	336	168	906	815	6.66	6.86	8.75
SW△-FE30-900-600R-○	3		900	665	356	178	1056	890	7.51	7.73	9.72

△ = Select a System Type ○ = Select a Finish & Material

Weights shown are for standard hot dip galvanised finish only, for Stainless Steel and Silicon Rich Steel weight conversion factors please refer to the Engineering Data Section of our catalogue (Page 213).

VANTRUNK
SPEEDLOK
QUICKFIT CABLE LADDER

Finishes & Materials:



Supplied with:

FIXING
SETS x16

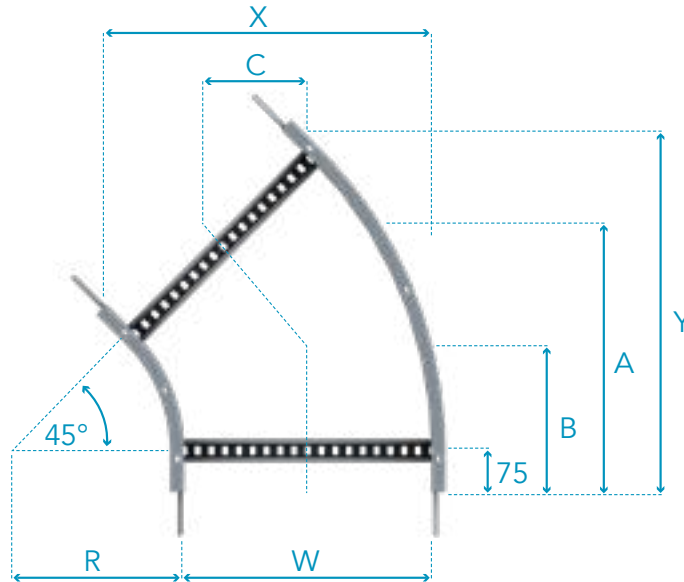
Not Required:



Speedway 45° Flat Elbows

Fitting Type: FE45

SW△-FE45-WIDTH-RADIUS-○



Part Number	No of Rungs	Dimensions (mm)							Weight (kg)		
		R	W	A	B	C	X	Y	SW4	SW5	SW6
SW△-FE45-150-300R-○	2	300	150	393	230	163	326	446	2.67	2.79	4.23
SW△-FE45-300-300R-○	2		300	446	261	185	476	552	3.28	3.43	5.13
SW△-FE45-450-300R-○	3		450	499	292	207	626	658	4.38	4.55	6.68
SW△-FE45-600-300R-○	3		600	552	324	229	776	764	5.15	5.35	7.78
SW△-FE45-750-300R-○	3		750	605	355	251	926	870	6.76	6.98	8.9
SW△-FE45-900-300R-○	3		900	658	386	273	1076	977	7.7	7.93	10.01
SW△-FE45-150-600R-○	3	600	150	605	355	251	413	658	3.91	4.13	6.24
SW△-FE45-300-600R-○	3		300	658	386	273	563	764	4.68	4.93	7.34
SW△-FE45-450-600R-○	3		450	711	417	295	713	870	5.46	5.73	8.46
SW△-FE45-600-600R-○	3		600	764	448	317	863	977	6.23	6.51	9.56
SW△-FE45-750-600R-○	4		750	817	479	339	1013	1083	8.93	9.24	11.79
SW△-FE45-900-600R-○	4		900	870	510	361	1163	1189	10.1	10.43	13.12

VANTRUNK
SPEEDLOK
QUICKFIT CABLE LADDER

Finishes & Materials:



Supplied with:

FIXING SETS x16

Not Required:



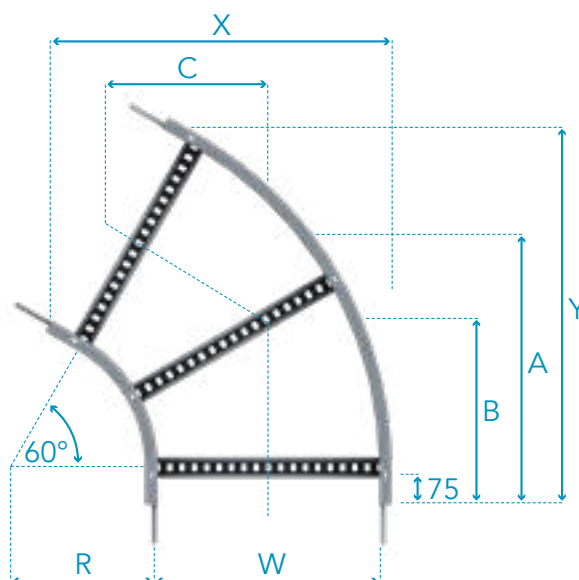
△ = Select a System Type ○ = Select a Finish & Material

Weights shown are for standard hot dip galvanised finish only, for Stainless Steel and Silicon Rich Steel weight conversion factors please refer to the Engineering Data Section of our catalogue (Page 213).

Speedway 60° Flat Elbows

Fitting Type: FE60

SW△-FE60-WIDTH-RADIUS-○



Part Number	No of Rungs	Dimensions (mm)							Weight (kg)		
		R	W	A	B	C	X	Y	SW4	SW5	SW6
SW△-FE60-150-300R-○	2	300	150	437	292	252	395	502	3.12	3.27	4.98
SW△-FE60-300-300R-○	2		300	502	335	290	545	632	4.15	4.34	6.46
SW△-FE60-450-300R-○	3		450	567	378	327	695	762	5.02	5.23	7.73
SW△-FE60-600-300R-○	3		600	632	421	365	845	892	5.89	6.11	8.97
SW△-FE60-750-300R-○	3		750	697	465	402	995	1022	9.79	10.06	12.45
SW△-FE60-900-300R-○	5		900	762	508	440	1145	1152	11.27	11.56	14.15
SW△-FE60-150-600R-○	3	600	150	697	465	402	545	762	4.74	5.02	7.58
SW△-FE60-300-600R-○	3		300	762	508	440	695	892	5.61	5.9	8.82
SW△-FE60-450-600R-○	3		450	827	551	477	845	1022	7.46	7.8	11.41
SW△-FE60-600-600R-○	5		600	892	595	515	995	1152	8.66	9.02	13.11
SW△-FE60-750-600R-○	5		750	957	638	552	1145	1282	11.23	11.63	14.81
SW△-FE60-900-600R-○	5		900	1022	681	590	1295	1412	12.71	13.14	10.01

△ = Select a System Type ○ = Select a Finish & Material

Weights shown are for standard hot dip galvanised finish only, for Stainless Steel and Silicon Rich Steel weight conversion factors please refer to the Engineering Data Section of our catalogue (Page 213).

VANTRUNK
SPEEDLOK
QUICKFIT CABLE LADDER

Finishes & Materials:



Supplied with:

FIXING SETS x16

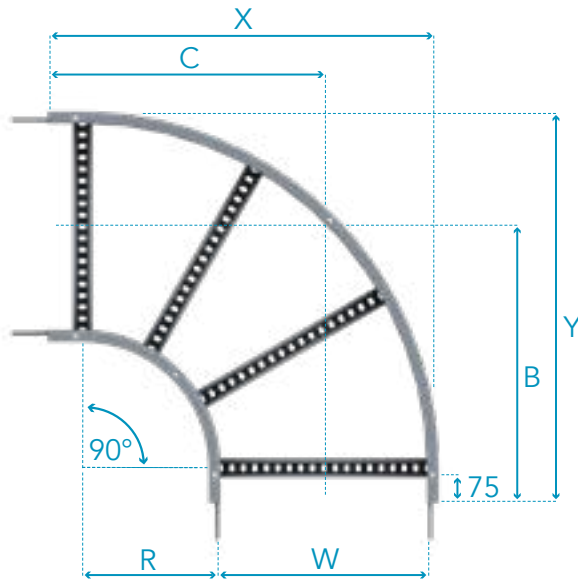
Not Required:



Speedway 90° Flat Elbows

Fitting Type: **FE90**

SW△-FE90-WIDTH-RADIUS○



Part Number	No of Rungs	Dimensions (mm)						Weight (kg)		
		R	W	B	C	X	Y	SW4	SW5	SW6
SW△-FE90-150-300R-○	2	300	150	450	450	545	525	4.19	4.44	6.7
SW△-FE90-300-300R-○	3		300	525	525	695	675	5.23	5.51	8.23
SW△-FE90-450-300R-○	4		450	600	600	845	825	6.77	7.1	10.45
SW△-FE90-600-300R-○	4		600	675	675	995	975	7.97	8.35	12.22
SW△-FE90-750-300R-○	5		750	750	750	1145	1125	11.41	11.83	15.11
SW△-FE90-900-300R-○	5		900	825	825	1295	1275	13.06	13.53	17.11
SW△-FE90-150-600R-○	4	600	150	750	750	845	825	6.53	6.94	10.44
SW△-FE90-300-600R-○	4		300	825	825	995	975	7.73	8.19	12.21
SW△-FE90-450-600R-○	5		450	900	900	1145	1125	9.45	9.95	14.65
SW△-FE90-600-600R-○	5		600	975	975	1295	1275	10.82	11.37	16.65
SW△-FE90-750-600R-○	7		750	1050	1050	1445	1425	15.81	16.4	20.86
SW△-FE90-900-600R-○	7		900	1125	1125	1595	1575	17.9	18.53	23.29

VANTRUNK
SPEEDLOK
QUICKFIT CABLE LADDER

Finishes & Materials:



Supplied with:

FIXING SETS x16

Not Required:



△ = Select a System Type ○ = Select a Finish & Material

Weights shown are for standard hot dip galvanised finish only, for Stainless Steel and Silicon Rich Steel weight conversion factors please refer to the Engineering Data Section of our catalogue (Page 213).



VANTRUNK

ENGINEERED FOR EXTREME ENVIRONMENTS

GOLDEN EAGLE PROJECT

The Nexen-operated Golden Eagle project produced first oil on October 30, 2014. Upon completion, the project had expended 179 million hours worked. Located 70 km northeast of Aberdeen, Golden Eagle is the second largest oil discovery in the UK North Sea since Buzzard was discovered in 2001.

LOCATION



NORTH SEA, UK
70km northeast of
Aberdeen.

CLIENT

nexen

\$4.8bn
OVERALL COST
OF PROJECT



FACT 1



140 million
barrels of oil equivalent

FACT 2

21

development
wells



15 production
6 water injectors

FACT 3



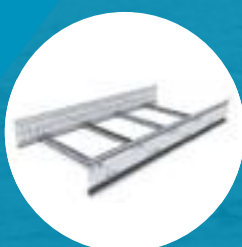
70,000 boe/d
production capacity

FACT 4



Fixed
wellhead platform
structure

PRODUCTS SUPPLIED



SPEEDWAY



HEAVY DUTY CABLE TRAY

VANTRUNK
SPEEDWAY®
EXTREME CABLE LADDER

Vantrunk's Speedway Cable Ladder provides a strong, reliable, easy to install solution providing overall cost savings throughout the project lifespan.

Lengths

Fittings

Couplers

Accessories

Supports

Covers

Fixings

Bespoke

Engineering

Index

Cable Ladder

Cable Tray

Steel Framing

Mounting Frame

INSIDE & OUTSIDE RISERS

Inside Risers (IR) and Outside Risers (OR) are designed to create fixed angular non-coplanar connections between cable runs and can be used in both vertical and horizontal orientations.

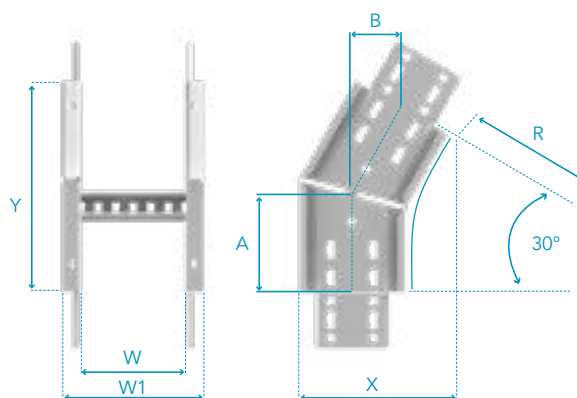
Speedway Inside Risers (or vertical inside bends) create internal changes in direction; outside risers (or vertical outside bends) create external changes in direction. The rungs are located at the intersection of adjacent facets.



Speedway 30° Inside & Outside Risers

Fitting Type: IR30 / OR30

Part Number: SWΔ-*R30-WIDTH-RADIUS-○



NOTE: Inside riser shown for illustrative purposes.

No. of Rungs 1 Radius R 300mm								No. of Rungs 2 Radius R 600mm							
Part Number	Dimensions (mm)						Weight (kg)	Part Number	Dimensions (mm)						Weight (kg)
	W	W1	A	B	X	Y			W	W1	A	B	X	Y	
SW4-IR30-150-300R-O	150	200	96	48	145	203	1.35	SW4-IR30-150-600R-O	150	200	176	88	185	353	2.17
SW4-IR30-300-300R-O	300	350	96	48	145	203	1.51	SW4-IR30-300-600R-O	300	350	176	88	185	353	2.51
SW4-IR30-450-300R-O	450	500	96	48	145	203	1.68	SW4-IR30-450-600R-O	450	500	176	88	185	353	2.84
SW4-IR30-600-300R-O	600	650	96	48	145	203	1.85	SW4-IR30-600-600R-O	600	650	176	88	185	353	3.17
SW4-IR30-750-300R-O	750	800	96	48	145	203	2.29	SW4-IR30-750-600R-O	750	800	176	88	185	353	4.06
SW4-IR30-900-300R-O	900	950	96	48	145	203	2.51	SW4-IR30-900-600R-O	900	950	176	88	185	353	4.5

No. of Rungs 1 Radius R 300mm								No. of Rungs 2 Radius R 600mm							
Part Number	Dimensions (mm)						Weight (kg)	Part Number	Dimensions (mm)						Weight (kg)
	W	W1	A	B	X	Y			W	W1	A	B	X	Y	
SW5-IR30-150-300R-O	150	200	98	49	165	213	1.39	SW5-IR30-150-600R-O	150	200	178	89	205	363	2.26
SW5-IR30-300-300R-O	300	350	98	49	165	213	1.55	SW5-IR30-300-600R-O	300	350	178	89	205	363	2.6
SW5-IR30-450-300R-O	450	500	98	49	165	213	1.72	SW5-IR30-450-600R-O	450	500	178	89	205	363	2.93
SW5-IR30-600-300R-O	600	650	98	49	165	213	1.89	SW5-IR30-600-600R-O	600	650	178	89	205	363	3.26
SW5-IR30-750-300R-O	750	800	98	49	165	213	2.33	SW5-IR30-750-600R-O	750	800	178	89	205	363	4.15
SW5-IR30-900-300R-O	900	950	98	49	165	213	2.55	SW5-IR30-900-600R-O	900	950	178	89	205	363	4.59

No. of Rungs 1 Radius R 300mm								No. of Rungs 2 Radius R 600mm							
Part Number	Dimensions (mm)						Weight (kg)	Part Number	Dimensions (mm)						Weight (kg)
	W	W1	A	B	X	Y			W	W1	A	B	X	Y	
SW6-IR30-150-300R-O	150	200	101	50	190	225	2.22	SW6-IR30-150-600R-O	150	200	181	91	230	375	3.53
SW6-IR30-300-300R-O	300	350	101	50	190	225	2.44	SW6-IR30-300-600R-O	300	350	181	91	230	375	3.98
SW6-IR30-450-300R-O	450	500	101	50	190	225	2.67	SW6-IR30-450-600R-O	450	500	181	91	230	375	4.42
SW6-IR30-600-300R-O	600	650	101	50	190	225	2.89	SW6-IR30-600-600R-O	600	650	181	91	230	375	4.87
SW6-IR30-750-300R-O	750	800	101	50	190	225	3.11	SW6-IR30-750-600R-O	750	800	181	91	230	375	5.31
SW6-IR30-900-300R-O	900	950	101	50	190	225	3.33	SW6-IR30-900-600R-O	900	950	181	91	230	375	5.75

○ = Select a Finish & Material



Finishes & Materials:



Supplied with:



Not Required:

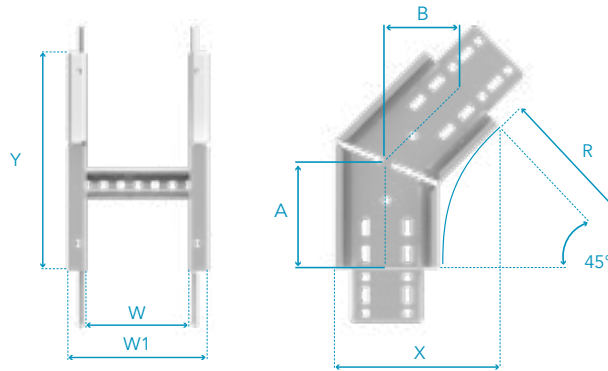


Weights shown are for standard hot dip galvanised finish only, for Stainless Steel and Silicon Rich Steel weight conversion factors please refer to the Engineering Data Section of our catalogue (Page 213).

Speedway 45° Inside & Outside Risers

Fitting Type: IR45 / OR45

Part Number: SW△*R45-WIDTH-RADIUS-○



NOTE: Inside riser shown for illustrative purposes.

No. of Rungs 1								No. of Rungs 2							
Radius R 300mm								Radius R 600mm							
Part Number	Dimensions (mm)						Weight (kg)	Part Number	Dimensions (mm)						Weight (kg)
	W	W1	A	B	X	Y			W	W1	A	B	X	Y	
SW4-IR45-150-300R-O	150	200	148	104	193	286	1.86	SW4-IR45-150-600R-O	150	200	272	192	281	499	3.02
SW4-IR45-300-300R-O	300	350	148	104	193	286	2.02	SW4-IR45-300-600R-O	300	350	272	192	281	499	3.36
SW4-IR45-450-300R-O	450	500	148	104	193	286	2.19	SW4-IR45-450-600R-O	450	500	272	192	281	499	3.69
SW4-IR45-600-300R-O	600	650	148	104	193	286	2.36	SW4-IR45-600-600R-O	600	650	272	192	281	499	4.02
SW4-IR45-750-300R-O	750	800	148	104	193	286	2.8	SW4-IR45-750-600R-O	750	800	272	192	281	499	4.91
SW4-IR45-900-300R-O	900	950	148	104	193	286	3.02	SW4-IR45-900-600R-O	900	950	272	192	281	499	5.35

No. of Rungs 1								No. of Rungs 2							
Radius R 300mm								Radius R 600mm							
Part Number	Dimensions (mm)						Weight (kg)	Part Number	Dimensions (mm)						Weight (kg)
	W	W1	A	B	X	Y			W	W1	A	B	X	Y	
SW5-IR45-150-300R-O	150	200	151	107	213	301	1.97	SW5-IR45-150-600R-O	150	200	275	194	301	513	3.22
SW5-IR45-300-300R-O	300	350	151	107	213	301	2.13	SW5-IR45-300-600R-O	300	350	275	194	301	513	3.56
SW5-IR45-450-300R-O	450	500	151	107	213	301	2.3	SW5-IR45-450-600R-O	450	500	275	194	301	513	3.89
SW5-IR45-600-300R-O	600	650	151	107	213	301	2.47	SW5-IR45-600-600R-O	600	650	275	194	301	513	4.22
SW5-IR45-750-300R-O	750	800	151	107	213	301	2.91	SW5-IR45-750-600R-O	750	800	275	194	301	513	5.11
SW5-IR45-900-300R-O	900	950	151	107	213	301	3.13	SW5-IR45-900-600R-O	900	950	275	194	301	513	5.55

No. of Rungs 1								No. of Rungs 2							
Radius R 300mm								Radius R 600mm							
Part Number	Dimensions (mm)						Weight (kg)	Part Number	Dimensions (mm)						Weight (kg)
	W	W1	A	B	X	Y			W	W1	A	B	X	Y	
SW6-IR45-150-300R-O	150	200	156	110	238	318	3.11	SW6-IR45-150-600R-O	150	200	280	198	326	530	4.97
SW6-IR45-300-300R-O	300	350	156	110	238	318	3.33	SW6-IR45-300-600R-O	300	350	280	198	326	530	5.42
SW6-IR45-450-300R-O	450	500	156	110	238	318	3.56	SW6-IR45-450-600R-O	450	500	280	198	326	530	5.86
SW6-IR45-600-300R-O	600	650	156	110	238	318	3.78	SW6-IR45-600-600R-O	600	650	280	198	326	530	6.31
SW6-IR45-750-300R-O	750	800	156	110	238	318	4	SW6-IR45-750-600R-O	750	800	280	198	326	530	6.75
SW6-IR45-900-300R-O	900	950	156	110	238	318	4.22	SW6-IR45-900-600R-O	900	950	280	198	326	530	7.19

○ = Select a Finish & Material



Finishes & Materials:



Supplied with:



Not Required:

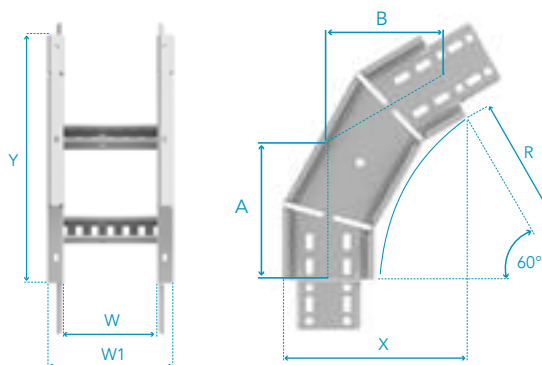


Weights shown are for standard hot dip galvanised finish only, for Stainless Steel and Silicon Rich Steel weight conversion factors please refer to the Engineering Data Section of our catalogue (Page 213).

Speedway 60° Inside & Outside Risers

Fitting Type: IR60 / OR60

Part Number: SW△*R60-WIDTH-RADIUS-○



For:
IR60: * = I
OR60: * = O

NOTE: Inside riser shown for illustrative purposes.

No. of Rungs 1								No. of Rungs 2							
Radius R 300mm								Radius R 600mm							
Part Number	Dimensions (mm)						Weight (kg)	Part Number	Dimensions (mm)						Weight (kg)
	W	W1	A	B	X	Y			W	W1	A	B	X	Y	
SW4-IR60-150-300R-O	150	200	206	178	255	351	2.42	SW4-IR60-150-600R-O	150	200	379	328	405	611	3.96
SW4-IR60-300-300R-O	300	350	206	178	255	351	2.76	SW4-IR60-300-600R-O	300	350	379	328	405	611	4.46
SW4-IR60-450-300R-O	450	500	206	178	255	351	3.09	SW4-IR60-450-600R-O	450	500	379	328	405	611	4.96
SW4-IR60-600-300R-O	600	650	206	178	255	351	3.42	SW4-IR60-600-600R-O	600	650	379	328	405	611	5.46
SW4-IR60-750-300R-O	750	800	206	178	255	351	4.31	SW4-IR60-750-600R-O	750	800	379	328	405	611	6.79
SW4-IR60-900-300R-O	900	950	206	178	255	351	4.75	SW4-IR60-900-600R-O	900	950	379	328	405	611	7.46

No. of Rungs 1								No. of Rungs 2							
Radius R 300mm								Radius R 600mm							
Part Number	Dimensions (mm)						Weight (kg)	Part Number	Dimensions (mm)						Weight (kg)
	W	W1	A	B	X	Y			W	W1	A	B	X	Y	
SW5-IR60-150-300R-O	150	200	210	182	275	368	2.55	SW5-IR60-150-600R-O	150	200	383	332	425	628	4.25
SW5-IR60-300-300R-O	300	350	210	182	275	368	2.89	SW5-IR60-300-600R-O	300	350	383	332	425	628	4.75
SW5-IR60-450-300R-O	450	500	210	182	275	368	3.22	SW5-IR60-450-600R-O	450	500	383	332	425	628	5.25
SW5-IR60-600-300R-O	600	650	210	182	275	368	3.55	SW5-IR60-600-600R-O	600	650	383	332	425	628	5.75
SW5-IR60-750-300R-O	750	800	210	182	275	368	4.44	SW5-IR60-750-600R-O	750	800	383	332	425	628	7.08
SW5-IR60-900-300R-O	900	950	210	182	275	368	4.88	SW5-IR60-900-600R-O	900	950	383	332	425	628	7.75

No. of Rungs 1								No. of Rungs 2							
Radius R 300mm								Radius R 600mm							
Part Number	Dimensions (mm)						Weight (kg)	Part Number	Dimensions (mm)						Weight (kg)
	W	W1	A	B	X	Y			W	W1	A	B	X	Y	
SW6-IR60-150-300R-O	150	200	217	188	300	390	4.01	SW6-IR60-150-600R-O	150	200	390	338	450	650	6.53
SW6-IR60-300-300R-O	300	350	217	188	300	390	4.46	SW6-IR60-300-600R-O	300	350	390	338	450	650	7.19
SW6-IR60-450-300R-O	450	500	217	188	300	390	4.9	SW6-IR60-450-600R-O	450	500	390	338	450	650	7.86
SW6-IR60-600-300R-O	600	650	217	188	300	390	5.35	SW6-IR60-600-600R-O	600	650	390	338	450	650	8.52
SW6-IR60-750-300R-O	750	800	217	188	300	390	5.79	SW6-IR60-750-600R-O	750	800	390	338	450	650	9.19
SW6-IR60-900-300R-O	900	950	217	188	300	390	6.23	SW6-IR60-900-600R-O	900	950	390	338	450	650	9.86

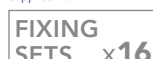
○ = Select a Finish & Material



Finishes & Materials:



Supplied with:



Not Required:

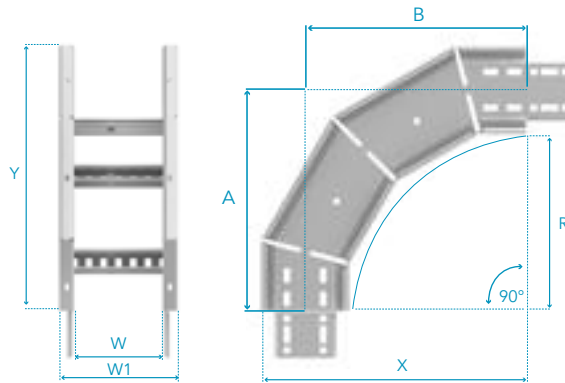


Weights shown are for standard hot dip galvanised finish only, for Stainless Steel and Silicon Rich Steel weight conversion factors please refer to the Engineering Data Section of our catalogue (Page 213).

Speedway 90° Inside & Outside Risers

Fitting Type: IR90 / OR90

Part Number: SW△-*R90-WIDTH-RADIUS-○



For:
IR90: * = I
OR90: * = O

NOTE: Inside riser shown for illustrative purposes.

No. of Rungs 1								No. of Rungs 2							
Radius R 300mm								Radius R 600mm							
Part Number	Dimensions (mm)						Weight (kg)	Part Number	Dimensions (mm)						Weight (kg)
	W	W1	A	B	X	Y			W	W1	A	B	X	Y	
SW4-IR90-150-300R-O	150	200	356	356	405	405	3.47	SW4-IR90-150-600R-O	150	200	656	656	705	705	5.8
SW4-IR90-300-300R-O	300	350	356	356	405	405	3.97	SW4-IR90-300-600R-O	300	350	656	656	705	705	6.46
SW4-IR90-450-300R-O	450	500	356	356	405	405	4.47	SW4-IR90-450-600R-O	450	500	656	656	705	705	7.13
SW4-IR90-600-300R-O	600	650	356	356	405	405	4.97	SW4-IR90-600-600R-O	600	650	656	656	705	705	7.79
SW4-IR90-750-300R-O	750	800	356	356	405	405	6.3	SW4-IR90-750-600R-O	750	800	656	656	705	705	9.57
SW4-IR90-900-300R-O	900	950	356	356	405	405	6.97	SW4-IR90-900-600R-O	900	950	656	656	705	705	10.46

No. of Rungs 1								No. of Rungs 2							
Radius R 300mm								Radius R 600mm							
Part Number	Dimensions (mm)						Weight (kg)	Part Number	Dimensions (mm)						Weight (kg)
	W	W1	A	B	X	Y			W	W1	A	B	X	Y	
SW5-IR90-150-300R-O	150	200	364	364	425	425	3.74	SW5-IR90-150-600R-O	150	200	664	664	725	725	6.22
SW5-IR90-300-300R-O	300	350	364	364	425	425	4.24	SW5-IR90-300-600R-O	300	350	664	664	725	725	6.88
SW5-IR90-450-300R-O	450	500	364	364	425	425	4.74	SW5-IR90-450-600R-O	450	500	664	664	725	725	7.55
SW5-IR90-600-300R-O	600	650	364	364	425	425	5.24	SW5-IR90-600-600R-O	600	650	664	664	725	725	8.21
SW5-IR90-750-300R-O	750	800	364	364	425	425	6.57	SW5-IR90-750-600R-O	750	800	664	664	725	725	9.99
SW5-IR90-900-300R-O	900	950	364	364	425	425	7.24	SW5-IR90-900-600R-O	900	950	664	664	725	725	10.88

No. of Rungs 1								No. of Rungs 2							
Radius R 300mm								Radius R 600mm							
Part Number	Dimensions (mm)						Weight (kg)	Part Number	Dimensions (mm)						Weight (kg)
	W	W1	A	B	X	Y			W	W1	A	B	X	Y	
SW6-IR90-150-300R-O	150	200	376	376	450	450	5.82	SW6-IR90-150-600R-O	150	200	676	676	750	750	9.55
SW6-IR90-300-300R-O	300	350	376	376	450	450	6.48	SW6-IR90-300-600R-O	300	350	676	676	750	750	10.44
SW6-IR90-450-300R-O	450	500	376	376	450	450	7.15	SW6-IR90-450-600R-O	450	500	676	676	750	750	11.32
SW6-IR90-600-300R-O	600	650	376	376	450	450	7.81	SW6-IR90-600-600R-O	600	650	676	676	750	750	12.21
SW6-IR90-750-300R-O	750	800	376	376	450	450	8.48	SW6-IR90-750-600R-O	750	800	676	676	750	750	13.1
SW6-IR90-900-300R-O	900	950	376	376	450	450	9.15	SW6-IR90-900-600R-O	900	950	676	676	750	750	13.99

○ = Select a Finish & Material



Finishes & Materials:



Supplied with:



Not Required:



Weights shown are for standard hot dip galvanised finish only, for Stainless Steel and Silicon Rich Steel weight conversion factors please refer to the Engineering Data Section of our catalogue (Page 213).

ARTICULATED RISERS

Speedway Articulated Risers (AR) are designed to create adjustable angular non-coplanar connections between Speedway Cable runs.

Speedway Articulated Risers consist of pre-assembled units, each comprising of end connectors and one or more middle sections which can be adjusted on site to suit specific installation requirements.

The articulated riser has a number of advantages over fixed risers:

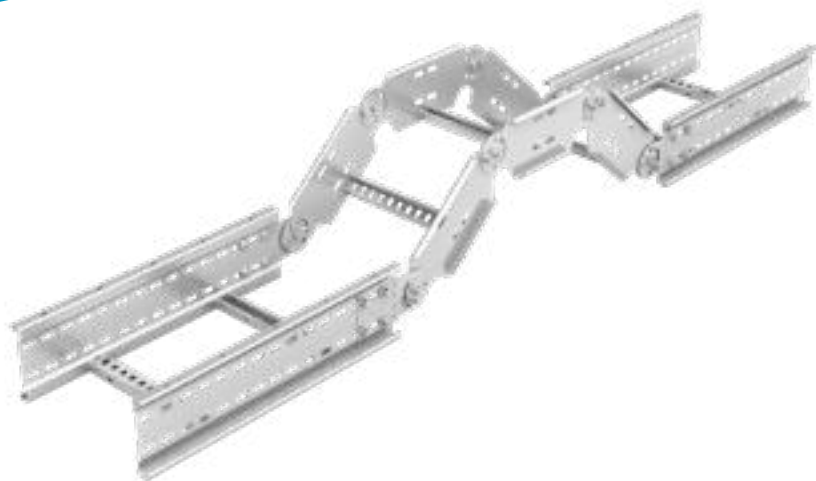
- Universal application – there is no requirement to select both inside and outside risers.
- Any number of middle sections can be added to achieve very large radii and allow strong support along an undulating cable route.
- The pattern of fixing holes allows for infinite angle and radius adjustment.
- Can be used to form a bridge, an 'S' bend, or an offset to suit installation routing challenges on site.

- The end connectors are vertical adjustable couplers and, by using the easi-bend slots, can be adjusted on site to create combined horizontal & vertical offset connections, or combined riser-tee connections onto the side wall of a main cable ladder run.

Speedway Articulated Risers are available in widths from 150mm to 1050mm as standard. Other widths of 100mm up to 1500mm, in 50mm increments, are available to order.

Intended to be locked into place after installation, the Speedway Articulated Riser is not designed to allow for relative movement between adjacent cable runs.

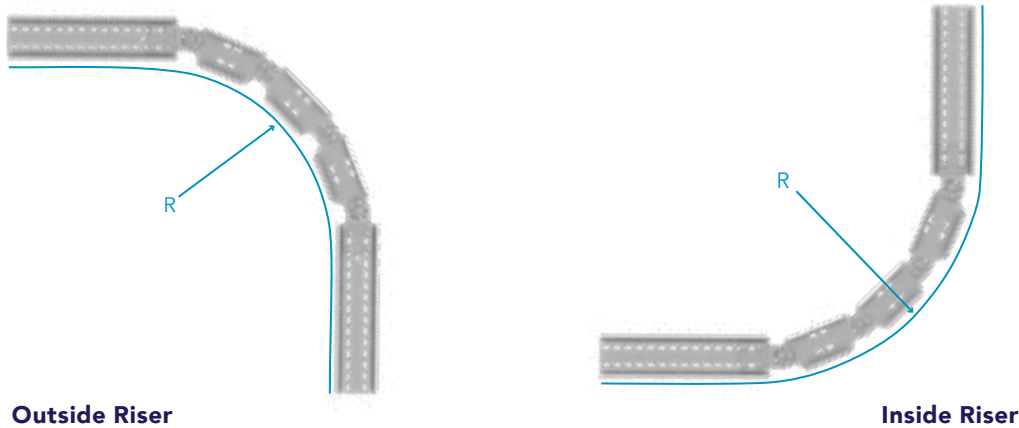
When joining one fitting to another to suit on site installation requirements the use of a Fitting to Fitting Coupler (FFC) will be required. Please refer to Page 69 for further details.



Articulated Risers

Fitting Type: AR (See table)

Angle & Section Details



The following table shows the combination of angle and radius which can be formed for a number of differing middle sections. The radius for both the inside and outside articulated riser is measured relative to the rung position.

Part Number	Angle	No. of Sections	Radius R mm			
			Inside Articulated Risers		Outside Articulated Risers	
			SW4 & SW5	SW6	SW4 & SW5	SW6
SWΔ-AR1-□-○	30	1	1148	1160	1070	1058
SWΔ-AR2-□-○		2	1718	1731	1640	1628
SWΔ-AR3-□-○		3	2327	2340	2250	2237
SWΔ-AR1-□-○	45	1	781	793	737	724
SWΔ-AR2-□-○		2	1163	1176	1122	1109
SWΔ-AR3-□-○		3	1562	1574	1484	1472
SWΔ-AR4-□-○		4	1945	1957	1867	1855
SWΔ-AR1-□-○	60	1	592	605	514	502
SWΔ-AR2-□-○		2	882	894	804	791
SWΔ-AR3-□-○		3	1178	1191	1100	1088
SWΔ-AR4-□-○		4	1466	1479	1388	1376
SWΔ-AR5-□-○		5	1753	1766	1676	1663
SWΔ-AR6-□-○		6	2041	2053	1963	1950
SWΔ-AR1-□-○	90	1	399	411	330	318
SWΔ-AR2-□-○		2	596	608	527	515
SWΔ-AR3-□-○		3	793	806	715	703
SWΔ-AR4-□-○		4	986	998	908	896
SWΔ-AR5-□-○		5	1178	1191	1100	1088
SWΔ-AR6-□-○		6	1370	1383	1292	1280
SWΔ-AR7-□-○		7	1562	1574	1484	1472
SWΔ-AR8-□-○		8	1753	1766	1676	1663

Δ = Select a System Type □ = Select a Ladder Width ○ = Select a Finish & Material

Finishes & Materials:



Supplied with:



Not Required:



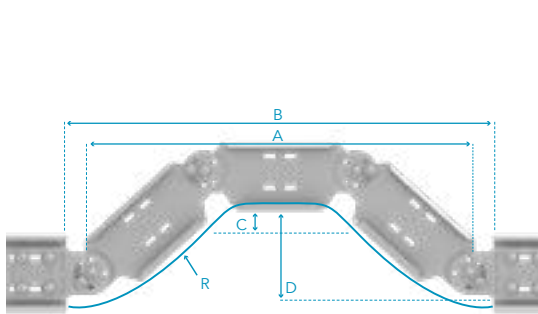
Consult our Technical Team for further offset dimensional information and guidance in the selection of the correct number of middle sections.



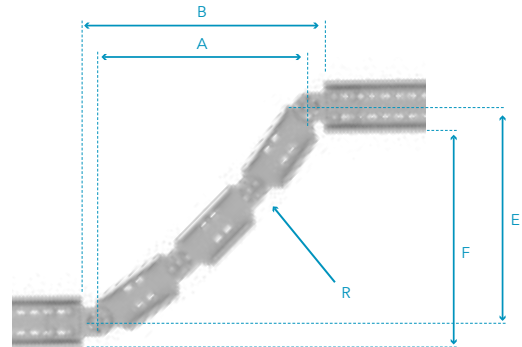
Articulated Risers

Fitting Type: AR (See table)

Bridge & Vertical Offset Dimensions



Bridge Dimensions



Vertical Offset Dimensions

When using the Speedway Articulated Riser as a bridge the following dimensions should be used as a guide.

Bridge Dimensions

Part Number	Radius R (mm)	No. of Sections	A (mm)	B (mm)	C (mm)	D (mm)	
						SW4-5	SW6
SWΔ-AR3-□-○	300	3	715	855	165	204	216
SWΔ-AR3-□-○	450	3	801	941	113	152	164
SWΔ-AR4-□-○		4	961	1101	242	251	293
SWΔ-AR3-□-○	600	3	840	980	80	118	131

Δ = Select a System Type □ = Select a Ladder Width ○ = Select a Finish & Material

The following table gives the maximum horizontal and vertical offsets which can be achieved for articulated risers with 1 to 4 sections whilst maintaining a radius of 300mm relative to the rung position.

Vertical Offset Dimensions

Part Number	Radius R (mm)	No. of Sections	A (mm)	B (mm)	E (mm)	F (mm)	
						SW4-5	SW6
SWΔ-AR1-□-○	300	1	216	356	208	183	208
SWΔ-AR2-□-○		2	399	539	441	416	441
SWΔ-AR3-□-○		3	600	740	663	638	663
SWΔ-AR4-□-○		4	823	963	865	840	865

Δ = Select a System Type □ = Select a Ladder Width ○ = Select a Finish & Material

Finishes & Materials:



Supplied with:



Not Required:



Consult our Technical Team for further offset dimensional information and guidance in the selection of the correct number of middle sections.

EQUAL & UNEQUAL TEES

Equal Tees (ET) and Unequal Tees (UT) are designed to create perpendicular coplanar connections between horizontal cable runs (ladder installed in horizontal plane) and between vertical cable runs (ladder installed in vertical plane).

Tees have a primary or main width (Wm) and a secondary or branch width (Wb). Tees with the same primary and secondary widths are called equal tees. Tees with differing main and branch widths are called unequal tees.

The rungs in the Speedway Tees are spaced to give a maximum linear distance of no more than 465mm between adjacent rungs/rungs on adjacent ladder and fittings.

Equal Tee



Unequal Tee



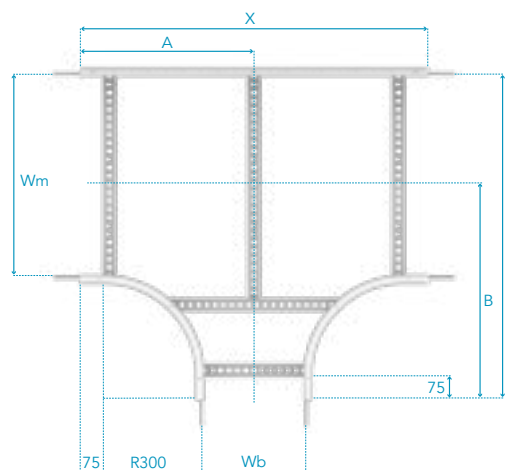
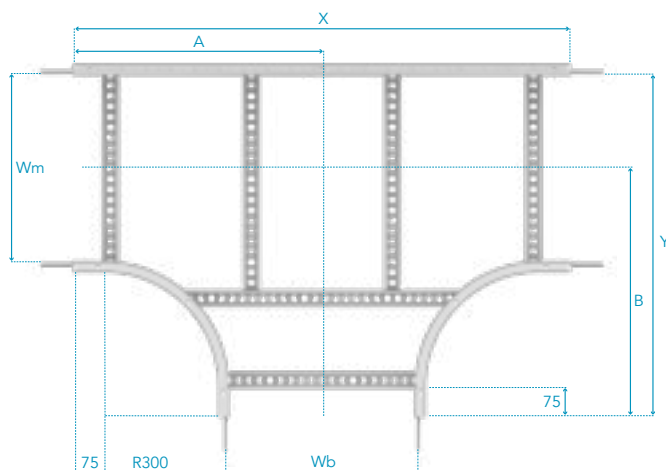
Speedway 300mm Radius Tees

Fitting Type: ET (Equal Tee) UT (Unequal Tee)

SWΔ-T-Wm-Wb-RADIUS-○

Equal Tee: * = E (include Wm only)

Unequal Tee: * = U (include both Wm and Wb)



150mm Branch										300mm Branch									
Part Number	Dimensions (mm)						Weight (kg)			Part Number	Dimensions (mm)						Weight (kg)		
	Wm	Wb	A	B	X	Y	SW4	SW5	SW6		Wm	Wb	A	B	X	Y	SW4	SW5	SW6
SWΔ-ET-150-300R-○	150	150	450	450	900	550	6.64	6.98	10.43	SWΔ-UT-150-300-300R-○	150	300	525	450	1050	550	7.32	7.7	11.43
SWΔ-UT-300-150-300R-○	300	150	450	525	900	700	7.15	7.49	11.09	SWΔ-ET-300-300R-○	300	300	525	525	1050	700	7.82	8.2	12.1
SWΔ-UT-450-150-300R-○	450	150	450	600	900	850	7.65	7.99	11.76	SWΔ-UT-450-300-300R-○	450	300	525	600	1050	850	8.31	8.69	12.76
SWΔ-UT-600-150-300R-○	600	150	450	675	900	1000	8.14	8.48	12.43	SWΔ-UT-600-300-300R-○	600	300	525	675	1050	1000	8.81	9.19	13.42
SWΔ-UT-750-150-300R-○	750	150	450	750	900	1150	8.65	8.99	13.09	SWΔ-UT-750-300-300R-○	750	300	525	750	1050	1150	9.32	9.7	14.09
SWΔ-UT-900-150-300R-○	900	150	450	825	900	1300	9.15	9.49	13.75	SWΔ-UT-900-300-300R-○	900	300	525	825	1050	1300	9.82	10.2	14.75

450mm Branch										600mm Branch									
Part Number	Dimensions (mm)						Weight (kg)			Part Number	Dimensions (mm)						Weight (kg)		
	Wm	Wb	A	B	X	Y	SW4	SW5	SW6		Wm	Wb	A	B	X	Y	SW4	SW5	SW6
SWΔ-UT-150-450-300R-○	150	450	600	450	1200	550	8.33	8.73	12.89	SWΔ-UT-150-600-300R-○	150	600	675	450	1350	550	9.01	9.45	13.9
SWΔ-UT-300-450-300R-○	300	450	600	525	1200	700	9	9.4	13.78	SWΔ-UT-300-600-300R-○	300	600	675	525	1350	700	9.68	10.12	14.79
SWΔ-ET-450-300R-○	450	450	600	600	1200	850	9.66	10.06	14.67	SWΔ-UT-450-600-300R-○	450	600	675	600	1350	850	10.34	10.78	15.67
SWΔ-UT-600-450-300R-○	600	450	600	675	1200	1000	10.33	10.73	15.56	SWΔ-ET-600-300R-○	600	600	675	675	1350	1000	11.01	11.45	16.56
SWΔ-UT-750-450-300R-○	750	450	600	750	1200	1150	11	11.4	16.44	SWΔ-UT-750-600-300R-○	750	600	675	750	1350	1150	11.68	12.12	17.46
SWΔ-UT-900-450-300R-○	900	450	600	825	1200	1300	11.66	12.06	17.33	SWΔ-UT-900-600-300R-○	900	600	675	825	1350	1300	12.34	12.78	18.35

750mm Branch										900mm Branch									
Part Number	Dimensions (mm)						Weight (kg)			Part Number	Dimensions (mm)						Weight (kg)		
	Wm	Wb	A	B	X	Y	SW4	SW5	SW6		Wm	Wb	A	B	X	Y	SW4	SW5	SW6
SWΔ-UT-150-750-300R-○	150	750	750	450	1500	550	9.69	10.15	14.89	SWΔ-UT-150-900-300R-○	150	900	825	450	1650	550	10.69	11.19	16.33
SWΔ-UT-300-750-300R-○	300	750	750	525	1500	700	10.36	10.82	15.78	SWΔ-UT-300-900-300R-○	300	900	825	525	1650	700	11.53	12.03	17.45
SWΔ-UT-450-750-300R-○	450	750	750	600	1500	850	11.02	11.48	16.67	SWΔ-UT-450-900-300R-○	450	900	825	600	1650	850	12.36	12.86	18.55
SWΔ-UT-600-750-300R-○	600	750	750	675	1500	1000	11.69	12.15	17.56	SWΔ-UT-600-900-300R-○	600	900	825	675	1650	1000	13.19	13.69	19.67
SWΔ-ET-750-300R-○	750	750	750	750	1500	1150	14.23	14.69	18.44	SWΔ-UT-750-900-300R-○	750	900	825	750	1650	1150	14.03	14.53	20.78
SWΔ-UT-900-750-300R-○	900	750	750	825	1500	1300	13.02	13.48	19.33	SWΔ-ET-900-300R-○	900	900	825	825	1650	1300	17.45	17.95	21.89

○ = Select a Finish & Material



Finishes & Materials:



Supplied with:



Not Required:



Weights shown are for standard hot dip galvanised finish only, for Stainless Steel and Silicon Rich Steel weight conversion factors please refer to the Engineering Data Section of our catalogue (Page 213).

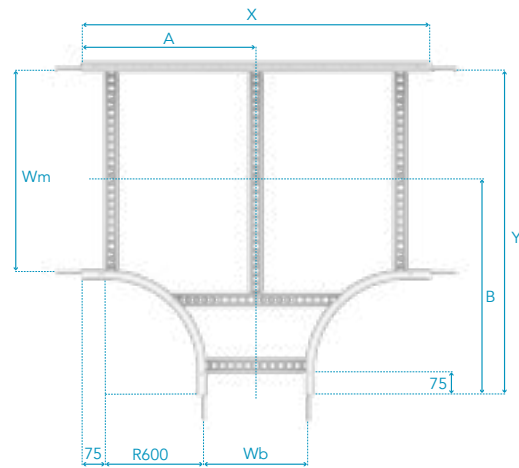
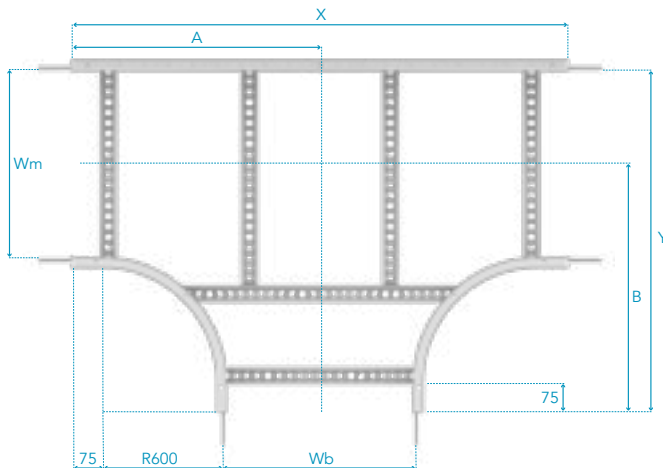
Speedway 600mm Radius Tees

Fitting ET (Equal Tee) Type: UT (Unequal Tee)

SWΔ-T-Wm-Wb-RADIUS-O

Equal Tee: * = E (include Wm only)

Unequal Tee: * = U (include both Wm and Wb)



150mm Branch										300mm Branch									
Part Number	Dimensions (mm)						Weight (kg)			Part Number	Dimensions (mm)						Weight (kg)		
	Wm	Wb	A	B	X	Y	SW4	SW5	SW6		Wm	Wb	A	B	X	Y	SW4	SW5	SW6
SWΔ-ET-150-600R-O	150	150	750	750	1500	850	11.03	11.65	17.32	SWΔ-UT-150-300-600R-O	150	300	825	750	1650	850	12.19	12.85	18.99
SWΔ-UT-300-150-600R-O	300	150	750	825	1500	1000	11.7	12.32	18.2	SWΔ-ET-300-600R-O	300	300	825	825	1650	1000	13.03	13.69	20.1
SWΔ-UT-450-150-600R-O	450	150	750	900	1500	1150	12.37	12.99	19.09	SWΔ-UT-450-300-600R-O	450	300	825	900	1650	1150	13.86	14.52	21.21
SWΔ-UT-600-150-600R-O	600	150	750	975	1500	1300	13.03	13.65	19.97	SWΔ-UT-600-300-600R-O	600	300	825	975	1650	1300	14.69	15.35	22.33
SWΔ-UT-750-150-600R-O	750	150	750	1050	1500	1450	13.7	14.32	20.87	SWΔ-UT-750-300-600R-O	750	300	825	1050	1650	1450	15.53	16.19	23.43
SWΔ-UT-900-150-600R-O	900	150	750	1125	1500	1600	14.36	14.98	21.73	SWΔ-UT-900-300-600R-O	900	300	825	1125	1650	1600	16.36	17.02	24.5

450mm Branch										600mm Branch									
Part Number	Dimensions (mm)						Weight (kg)			Part Number	Dimensions (mm)						Weight (kg)		
	Wm	Wb	A	B	X	Y	SW4	SW5	SW6		Wm	Wb	A	B	X	Y	SW4	SW5	SW6
SWΔ-UT-150-450-600R-O	150	450	900	750	1800	850	12.87	13.56	19.99	SWΔ-UT-150-600-600R-O	150	600	975	750	1950	850	13.56	14.27	21.01
SWΔ-UT-300-450-600R-O	300	450	900	825	1800	1000	13.71	14.4	21.11	SWΔ-UT-300-600-600R-O	300	600	975	825	1950	1000	14.39	15.1	22.12
SWΔ-ET-450-600R-O	450	450	900	900	1800	1150	14.54	15.23	22.22	SWΔ-UT-450-600-600R-O	450	600	975	900	1950	1150	15.23	15.94	23.23
SWΔ-UT-600-450-600R-O	600	450	900	975	1800	1300	15.37	16.06	23.34	SWΔ-ET-600-600R-O	600	600	975	975	1950	1300	16.06	16.77	24.34
SWΔ-UT-750-450-600R-O	750	450	900	1050	1800	1450	16.21	16.9	24.44	SWΔ-UT-750-600-600R-O	750	600	975	1050	1950	1450	16.89	17.6	25.46
SWΔ-UT-900-450-600R-O	900	450	900	1125	1800	1600	17.04	17.73	25.52	SWΔ-UT-900-600-600R-O	900	600	975	1125	1950	1600	17.73	18.44	26.52

750mm Branch										900mm Branch									
Part Number	Dimensions (mm)						Weight (kg)			Part Number	Dimensions (mm)						Weight (kg)		
	Wm	Wb	A	B	X	Y	SW4	SW5	SW6		Wm	Wb	A	B	X	Y	SW4	SW5	SW6
SWΔ-UT-150-750-600R-O	150	750	1050	750	2100	850	14.73	15.47	22.65	SWΔ-UT-150-900-600R-O	150	900	1125	750	2250	850	15.91	16.67	23.67
SWΔ-UT-300-750-600R-O	300	750	1050	825	2100	1000	15.73	16.47	23.99	SWΔ-UT-300-900-600R-O	300	900	1125	825	2250	1000	16.91	17.67	25.01
SWΔ-UT-450-750-600R-O	450	750	1050	900	2100	1150	16.73	17.47	25.32	SWΔ-UT-450-900-600R-O	450	900	1125	900	2250	1150	17.91	18.67	26.34
SWΔ-UT-600-750-600R-O	600	750	1050	975	2100	1300	17.73	18.47	26.66	SWΔ-UT-600-900-600R-O	600	900	1125	975	2250	1300	18.91	19.67	27.68
SWΔ-ET-750-600R-O	750	750	1050	1050	2100	1450	21.55	22.29	27.99	SWΔ-UT-750-900-600R-O	750	900	1125	1050	2250	1450	19.91	20.67	29.01
SWΔ-UT-900-750-600R-O	900	750	1050	1125	2100	1600	19.73	20.47	29.27	SWΔ-ET-900-600R-O	900	900	1125	1125	2250	1600	23.64	24.4	30.3

O = Select a Finish & Material



Finishes & Materials:



Supplied with:



Not Required:



Weights shown are for standard hot dip galvanised finish only, for Stainless Steel and Silicon Rich Steel weight conversion factors please refer to the Engineering Data Section of our catalogue (Page 213).



VANTRUNK

ENGINEERED FOR EXTREME ENVIRONMENTS

GORGON LNG

Gorgon is a story of energy, the environment as well as technology and expertise. It is globally one of the largest natural gas projects ever undertaken, in a challenging and remote location, and the largest single-resource development in Australia's history.

LOCATION



WESTERN AUSTRALIA
Between 130 - 220km
off the northwest coast.

CLIENT



Kellogg Joint Venture | Gorgon

\$54bn
OVERALL COST
OF PROJECT



FACT 1



15.6 million
tonne per annum (MTPA)
liquefied natural gas plant

FACT 2



2.1 km
long loading jetty

FACT 3

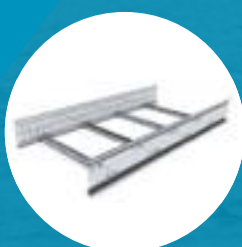
12.9 tcf gas
in water depth of
220m

FACT 4

Carbon Capture
Dupuy reservoir

2,500m
below Barrow island

PRODUCTS SUPPLIED



SPEEDWAY



HEAVY DUTY CABLE TRAY

VANTRUNK
SPEEDWAY®
EXTREME CABLE LADDER

Vantrunk's Speedway Cable Ladder provides a strong, reliable, easy to install solution providing overall cost savings throughout the project lifespan.

visit us online at vantrunk.com

Lengths

Fittings

Couplers

Accessories

Supports

Covers

Cable Ladder

Cable Tray

Steel Framing

Mounting Frame

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Bespoke

Engineering

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EQUAL CROSSES

Equal Crosses (EC) are designed to create intersecting coplanar connections between horizontal cable runs (ladder installed in horizontal plane) and between vertical cable runs (ladder installed in vertical plane).

Equal Crosses, where the branches have identical widths, are supplied as standard. Consult our Sales Team on the availability of non-standard crosses where differing branch widths and differing radii are required to suit specific installation requirements.

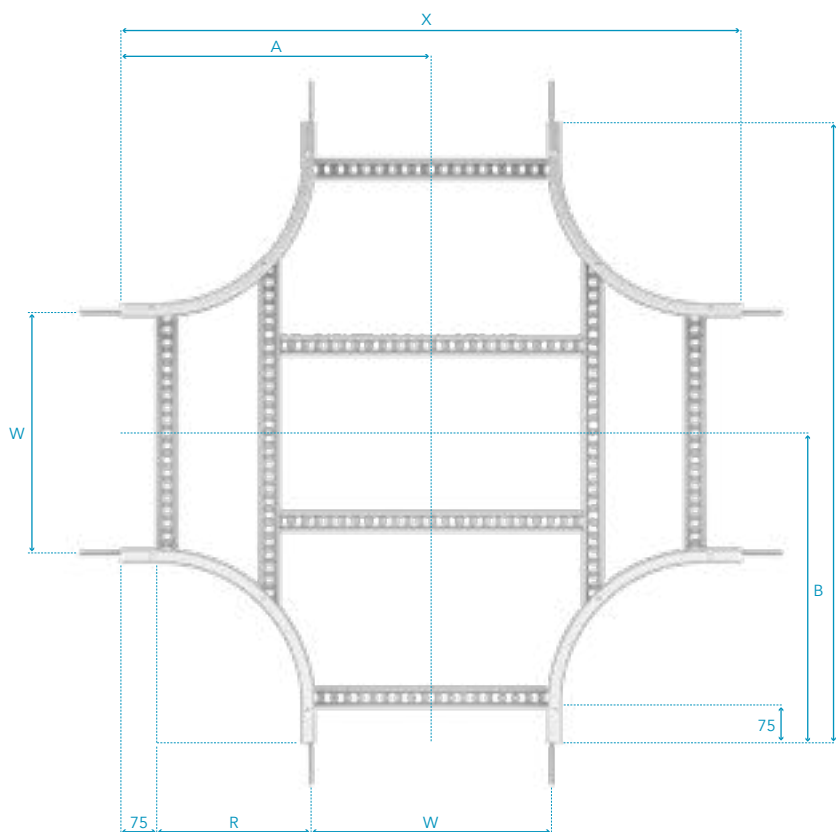
Equal Cross



Speedway Equal Crosses

Fitting Type: EC

SW△-EC-WIDTH-RADIUS-○



Part Number	Dimensions (mm)						Weights (kg)		
	R	W	A	B	X	Y	SW4	SW5	SW6
SW△-EC-150-300R-○	300	150	450	450	900	900	8.17	8.57	12.74
SW△-EC-300-300R-○	300	300	525	525	1050	1050	9.33	9.73	14.31
SW△-EC-450-300R-○	300	450	600	600	1200	1200	11.17	11.57	16.74
SW△-EC-600-300R-○	300	600	675	675	1350	1350	12.5	12.9	18.51
SW△-EC-750-300R-○	300	750	750	750	1500	1500	16.38	16.78	20.29
SW△-EC-900-300R-○	300	900	825	825	1650	1650	19.69	20.09	23.6
SW△-EC-150-600R-○	600	150	750	750	1500	1500	13.85	14.56	21.58
SW△-EC-300-600R-○	600	300	825	825	1650	1650	16.01	16.72	24.47
SW△-EC-450-600R-○	600	450	900	900	1800	1800	17.52	18.23	26.46
SW△-EC-600-600R-○	600	600	975	975	1950	1950	19.01	19.72	28.46
SW△-EC-750-600R-○	600	750	1050	1050	2100	2100	25.55	26.26	32.17
SW△-EC-900-600R-○	600	900	1125	1125	2250	2250	27.77	28.48	34.39

△= Select a System Type ○= Select a Finish & Material

Finishes & Materials:



Supplied with:

FIXING
SETS x32

Not Required:



VANTRUNK
SPEEDLOK
QUICKFIT CABLE LADDER

Weights shown are for standard hot dip galvanised finish only, for Stainless Steel and Silicon Rich Steel weight conversion factors please refer to the Engineering Data Section of our catalogue (Page 213).

Lengths

Cable Ladder

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Cable Tray

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Bespoke

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REDUCERS - STRAIGHT, LEFT & RIGHT

Speedway Reducers are used to create coplanar reductions in widths between adjoining straight ladders and between straight ladders and fittings of the same ladder type, fulfilling the same role as short and long adjustable couplers but using a purpose made fitting capable of self-support as part of a cable run.

Speedway Straight Reducers (RS reducer straight) are used to create a concentric reduction, having an equal width reduction along both sides. Left hand reducers (RL reducer left) and right hand reducers (RR reducer right) are used to create offset reductions to suit particular 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.

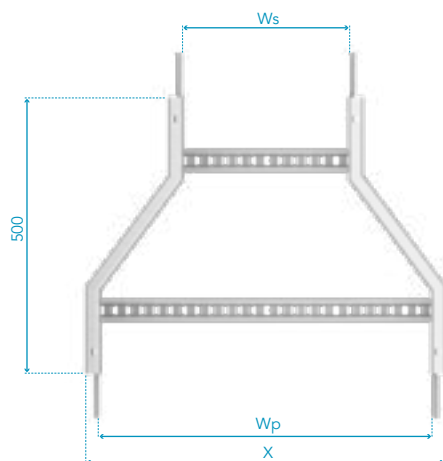
The Speedway Reducer has an overall length of 500mm and feature two rungs as standard irrespective of ladder type and width reduction.



Reducer Straight

Fitting Type: RS

SW△-RS-WIDTH PRIMARY-WIDTH SECONDARY-○



Part Number	Dimensions (mm)			Weight (kg)		
	Wp	Ws	X	SW4	SW5	SW6
SW△-RS-300-150-○	300	150	350	3.14	3.28	4.92
SW△-RS-450-150-○	450		500	3.47	3.62	5.44
SW△-RS-600-150-○	600		650	3.88	4.06	6.04
SW△-RS-750-150-○	750		800	4.64	4.84	6.7
SW△-RS-900-150-○	900		950	5.17	5.39	7.41
SW△-RS-450-300-○	450	300	500	3.47	3.61	5.37
SW△-RS-600-300-○	600		650	3.8	3.95	5.88
SW△-RS-750-300-○	750		800	4.59	4.77	6.48
SW△-RS-900-300-○	900		950	5.08	5.28	7.14
SW△-RS-600-450-○	600	450	650	3.81	3.95	5.82
SW△-RS-750-450-○	750		800	4.58	4.73	6.33
SW△-RS-900-450-○	900		950	5.04	5.22	6.93
SW△-RS-750-600-○	750	600	800	4.64	4.78	6.26
SW△-RS-900-600-○	900		950	5.02	5.17	6.77
SW△-RS-900-750-○	900	750	950	5.08	5.22	6.7

△ = Select a System Type ○ = Select a Finish & Material

Finishes & Materials:



Supplied with:

FIXING
SETS x16

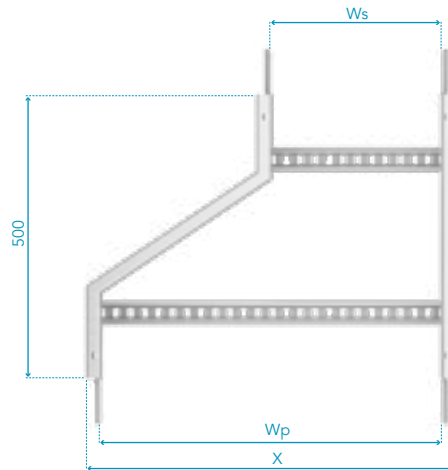
VANTRUNK
SPEEDLOK
QUICKFIT CABLE LADDER

Weights shown are for standard hot dip galvanised finish only, for Stainless Steel and Silicon Rich Steel weight conversion factors please refer to the Engineering Data Section of our catalogue (Page 213).

Reducer Left

Fitting Type: RL

SW△-RL-WIDTH PRIMARY-WIDTH SECONDARY-○



Part Number	Dimensions (mm)			Weight (kg)		
	Wp	Ws	X	SW4	SW5	SW6
SW△-RL-300-150-○	300	150	350	3.21	3.36	5.06
SW△-RL-450-150-○	450		500	3.63	3.8	5.7
SW△-RL-600-150-○	600		650	4.11	4.31	6.42
SW△-RL-750-150-○	750		800	4.93	5.14	7.16
SW△-RL-900-150-○	900		950	5.47	5.73	7.92
SW△-RL-450-300-○	450	300	500	3.54	7.82	5.51
SW△-RL-600-300-○	600		650	3.96	4.13	6.14
SW△-RL-750-300-○	750		800	4.82	5.02	6.86
SW△-RL-900-300-○	900		950	5.37	5.58	7.6
SW△-RL-600-450-○	600	450	650	3.88	4.03	5.96
SW△-RL-750-450-○	750		800	4.74	4.91	6.59
SW△-RL-900-450-○	900		950	5.27	5.47	7.31
SW△-RL-750-600-○	750	600	800	4.71	4.86	6.4
SW△-RL-900-600-○	900		950	5.18	5.35	7.03
SW△-RL-900-750-○	900	750	950	5.15	5.3	6.84

△ = Select a System Type ○ = Select a Finish & Material

Finishes & Materials:



Supplied with:

**FIXING
SETS x16**

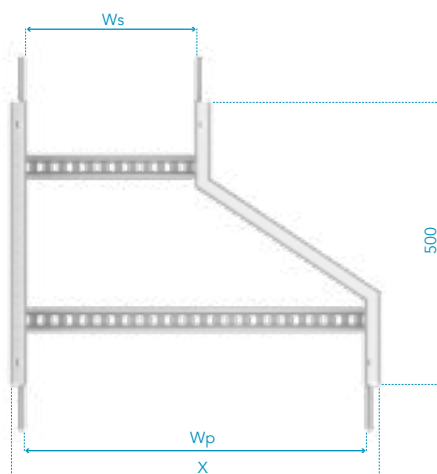
VANTRUNK
SPEEDLOK
QUICKFIT CABLE LADDER

Weights shown are for standard hot dip galvanised finish only, for Stainless Steel and Silicon Rich Steel weight conversion factors please refer to the Engineering Data Section of our catalogue (Page 213).

Reducer Right

Fitting Type: RR

SW△-RR-WIDTH PRIMARY-WIDTH SECONDARY-○



Part Number	Dimensions (mm)			Weight (kg)		
	Wp	Ws	X	SW4	SW5	SW6
SW△-RR-300-150-○	300	150	350	3.21	3.36	5.06
SW△-RR-450-150-○	450		500	3.63	3.8	5.7
SW△-RR-600-150-○	600		650	4.11	4.31	6.42
SW△-RR-750-150-○	750		800	4.93	5.14	7.16
SW△-RR-900-150-○	900		950	5.47	5.73	7.92
SW△-RR-450-300-○	450	300	500	3.54	3.69	5.51
SW△-RR-600-300-○	600		650	3.96	4.13	6.14
SW△-RR-750-300-○	750		800	4.82	5.02	6.86
SW△-RR-900-300-○	900		950	5.37	5.58	7.6
SW△-RR-600-450-○	600	450	650	3.88	4.03	5.96
SW△-RR-750-450-○	750		800	4.74	4.91	6.59
SW△-RR-900-450-○	900		950	5.27	5.47	7.31
SW△-RR-750-600-○	750	600	800	4.71	4.86	6.4
SW△-RR-900-600-○	900		950	5.18	5.35	7.03
SW△-RR-900-750-○	900	750	950	5.15	5.3	6.84

△ = Select a System Type ○ = Select a Finish & Material

Finishes & Materials:



Supplied with:

**FIXING
SETS x16**

VANTRUNK
SPEEDLOK
QUICKFIT CABLE LADDER

Weights shown are for standard hot dip galvanised finish only, for Stainless Steel and Silicon Rich Steel weight conversion factors please refer to the Engineering Data Section of our catalogue (Page 213).

Lengths

Cable Ladder

Fittings

Cable Tray

Couplers

Steel Framing

Accessories

Supports

Mounting Frame

Covers

Fixings

Bespoke

Engineering

COUPLERS

The Speedway Coupling system has been designed to reduce the potential for slip to occur between connected components, a common problem for cable ladder systems when under load.

The slot pattern in the ladder sides can be combined with the slot pattern in the couplers and integral couplers to create a pattern of squares; these square patterns can also be formed irrespective of where straight ladders are cut to length to suit site installation requirements. The specially designed Vantrunk square shouldered bolt interlocks into this pattern of squares to create a slip-resistant connection.

The Speedway Coupler has a profile which exactly matches the unique profile of the Speedway Ladder (& Fitting side walls) to give a high performance connection which securely holds the connected components together.

All standard Speedway Couplers are supplied singly and come complete with all necessary fixings. i.e. specially designed domed head M10X20 cup square bolts (eliminating sharp edges) and M10 Serrated Flange Nuts as standard.

SW4 Straight Coupler

Coupler Type: SW4-CS

Part Number: SW4-CS-○



○ = Select a Finish & Material

Finishes & Materials:



Supplied with:

FIXING
SETS x4

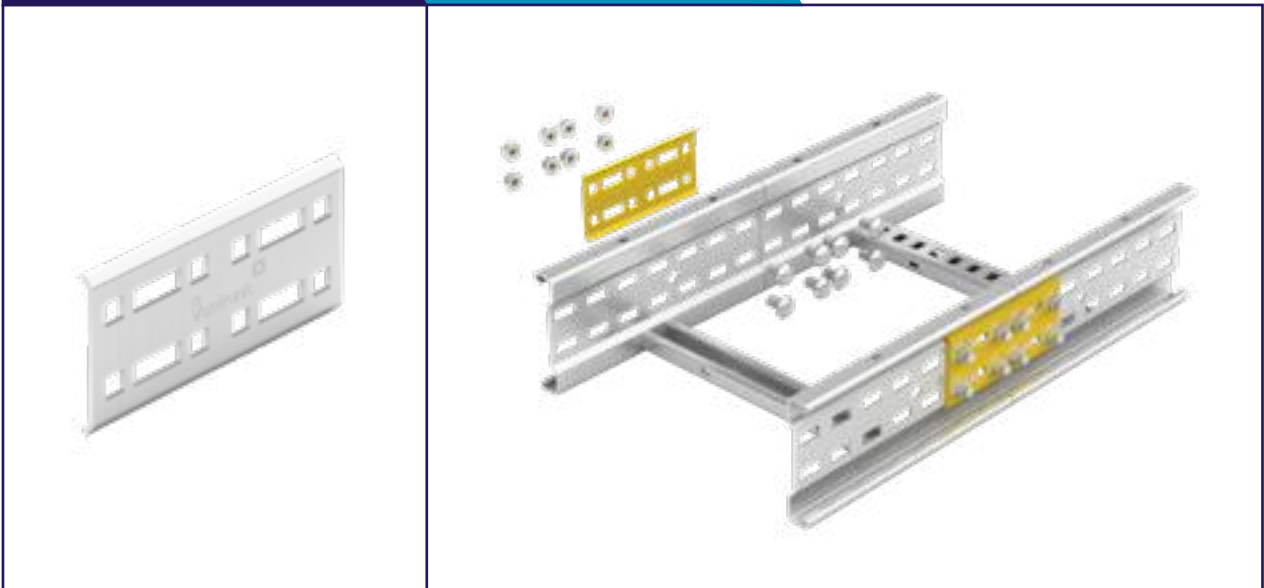
Not Required:

Showing assembly detail
onto ladder. Supplied
with 4 fixings per coupler

SW5 Straight Coupler

Coupler Type: SW5-CS

Part Number: SW5-CS-○



○ = Select a Finish & Material

Finishes & Materials:



Supplied with:

FIXING
SETS x8

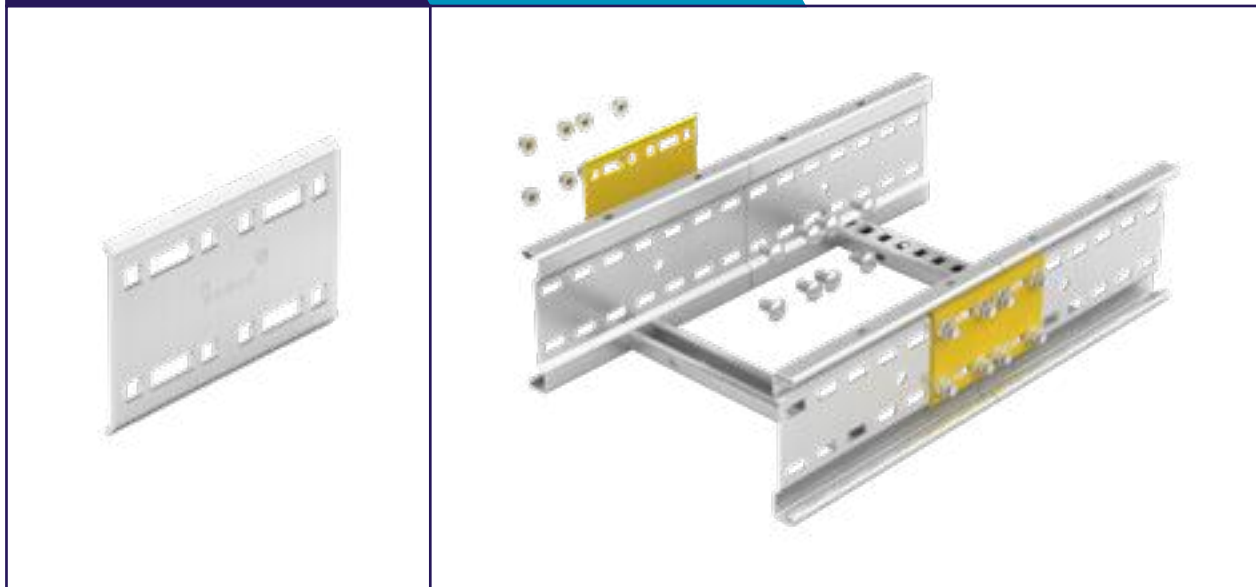
Not Required:

Showing assembly detail
onto ladder. Supplied
with 8 fixings per coupler

SW6 Straight Coupler

Coupler Type: SW6-CS

Part Number: SW6-CS-○



○ = Select a Finish & Material

Finishes & Materials:



Supplied with:

**FIXING
SETS** x8

Not Required:



Showing assembly detail
onto ladder. Supplied
with 8 fixings per coupler



Horizontal Adjustable Couplers

Speedway Horizontal Adjustable Couplers (HAC's) are used to join straight ladder and fittings where these need to be connected at offset angles in the same horizontal or vertical plane. When connecting a HAC to a cable ladder fitting please connect via a Fitting to Fitting Coupler (FFC), turn to Page 69 for details.

Speedway Horizontal Adjustable Couplers are supplied singly and come complete with all necessary ladder fixing sets.

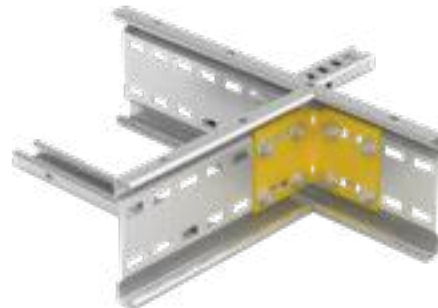
The Speedway Horizontal Adjustable Coupler is supplied flat and has easi-bend slots which allow the coupler to be bent on site to any angle to connect two cable ladder runs to form 'T' & 'Y' intersections.

Coupler Type: HAC

Part Number: SW△-HAC-○



Horizontal adjustable couplers
shown as a pair in use to create an offset
connection between two ladders



**Horizontal adjustable
coupler**
shown formed to 90° to join
a ladder to a main run

△ = Select a System Type ○ = Select a Finish & Material

Finishes & Materials:



Supplied with:



Not Required:



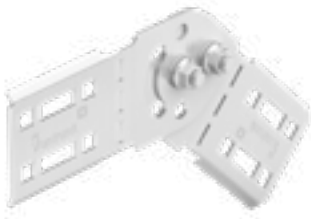




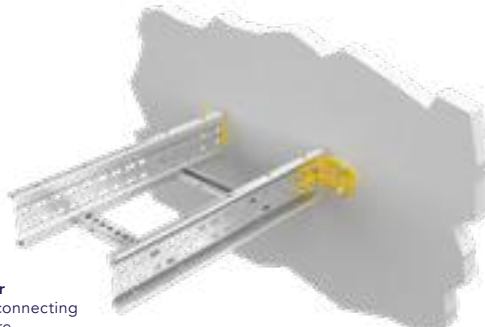
Showing assembly detail
onto ladder. Supplied
with 8 fixings per coupler

Vertical Adjustable Couplers

Speedway Vertical Adjustable couplers (VAC) are used to join straight ladder and fittings where these need to be connected at offset angles when these lie in different planes. When connecting a VAC to a cable ladder fitting please connect via a Fitting to Fitting Coupler (FFC), turn to Page 69 for details.

Speedway Vertical Adjustable couplers are supplied singly and come complete with all necessary ladder fixing sets. Each vertical adjustable coupler comprises of two half plates complete with all necessary pivot fixings.

The arrangement of the pivot holes and elongated slots allows for infinite angular adjustment to suit specific site requirements. The vertical adjustable coupler features easi-bend slots which allow the couplers to be adjusted on site to create combined horizontal & vertical offset connections, ladder connections onto the side wall of a main run to form tees, or straight ladder & fitting connections directly to a floor or wall.

Coupler Type: VAC	Part Number: SW△-VAC-○
	 <p>Vertical Adjustable Coupler Shown connecting two ladders in the vertical plane</p>
	 <p>Vertical Adjustable Coupler Shown bent to 90° and connecting an angled ladder to a horizontal ladder</p>
	 <p>Vertical Adjustable Coupler Half shown bent to 90° and connecting a ladder to a vertical structure</p>

△ = Select a System Type ○ = Select a Finish & Material

Finishes & Materials:



Supplied with:



Not Required:



Showing assembly detail onto ladder. Supplied with 8 fixings per coupler

Horizontal Hinged Couplers

Speedway Horizontal Hinged Couplers (HHC's) are offered as an alternative to the HAC. Speedway Horizontal Hinged Couplers are supplied singly and come complete with all necessary ladder fixing sets.

The Speedway Horizontal Hinged Coupler is supplied as an assembly allowing the coupler to be hinged to any angle to connect two cable ladder runs to form 'T' & 'Y' intersections.



Coupler Type: HHC

Part Number: SW△-HHC-○



△ = Select a System Type ○ = Select a Finish & Material

Finishes & Materials:



Supplied with:

**FIXING
SETS x8**

Not Required:



Showing assembly detail onto ladder. Supplied with 8 fixings per coupler



Short & Long Adjustable Couplers

Speedway Short and Long Adjustable Couplers are used to create custom reductions in width during installation & to convert equal tees and crosses into unequal tees and crosses when used with a Fitting to Fitting Coupler (FFC).

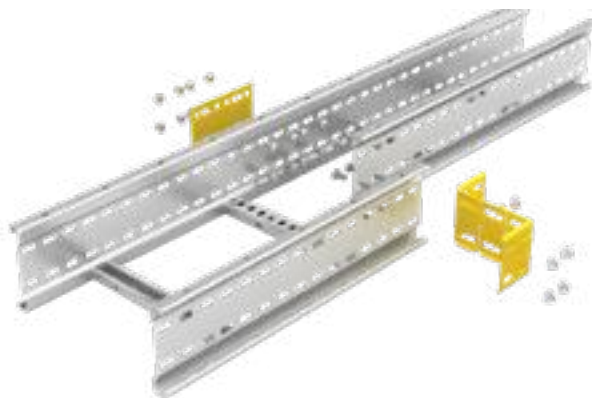
Speedway Short and Long Adjustable Couplers are supplied singly and come complete with all necessary ladder fixing sets. Each adjustable coupler has 50mm long segments with easibend slots which allow the couplers to be adjusted on site to suit specific installation requirements.

Short adjustable couplers allow reductions of up to & including 150mm per coupler. Long adjustable couplers allow reductions of up to & including 300mm per coupler.

A single short or long adjustable coupler can be used in conjunction with a standard coupler to create an offset connection between two ladders or fittings of differing widths. For concentric reductions, two short or long adjustable couplers are required.

Coupler Type: SAC & LAC

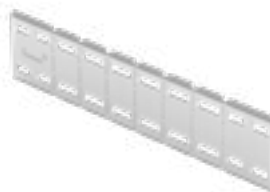
Part Number: SW△-LAC-○



Short Adjustable Coupler SW△-SAC-○
Supplied flat



Shown bent to form 150mm width reduction



Long Adjustable Coupler SW△-LAC-○
Supplied flat



Shown bent to form 300mm width reduction

△ = Select a System Type ○ = Select a Finish & Material

Finishes & Materials:



Supplied with:



Fitting to Fitting Coupler

Speedway Fitting to Fitting Coupler (FFC) facilitates the joining of two abutting cable ladder fittings with Speedlok Integral Couplers. The fitting to fitting coupler is also used when turning an equal cross into an unequal Cross.

The Fitting to Fitting Coupler is based on the traditional Speedway Cable Ladder profile which is manufactured to a length of 200mm. The FFC is available across the Speedway product range in SW4, SW5 and SW6. To allow for two cable ladder fittings to be secured each FFC has 5 rows of slots, containing an 11mm hole in the middle row to allow fixing of an Earth Bonding Strap (ESB-01)

To join two ladder fittings, first loose fit the FFC to one of the abutting fittings. Once the FFC is in place it will allow the secondary fitting to be positioned and fixed easily, tighten the fixings allowing the integral couplers to clamp onto the FFC profile thus providing a secure joining mechanism between the fittings.

An FFC will also be required when turning an Equal Cross (EC) into an Unequal Cross using a Reducer. Firstly the FFC should be secured loosely to the Cross, when both FFCs are in place secure the reducer. When all fixing locations are tightened the reducer will provide an immediate reduction to the equal cross. Please refer to Equal Crosses for more details.

The Fitting to Fitting coupler is supplied singly. To allow for full mechanical and environmental protection of cables, a Fitting to Fitting Cover will be required.

Coupler Type: FFC

Part Number: SW△-FFC-○



△ = Select a System Type ○ = Select a Finish & Material

Finishes & Materials:



Supplied with:

FIXING
SETS x0

Expansion Coupler


Speedway Expansion Couplers (EXP) are recommended for those installations where the maximum and minimum temperatures are such that the expansion and contraction of the cable ladder installation is a consideration.

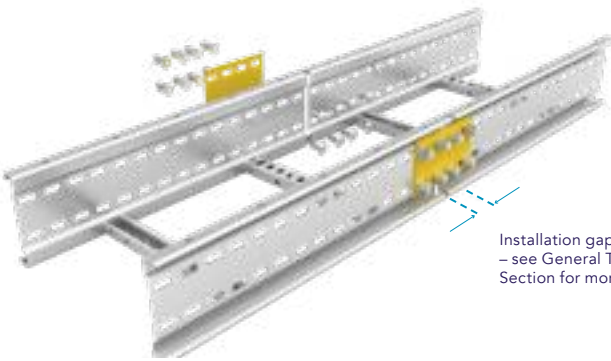
Each Expansion Coupler is designed to allow for a maximum movement of 28mm. Speedway expansion couplers are supplied singly and come complete with all necessary ladder fixings (8 fixings supplied with each coupler).

The Expansion Coupler should not be installed without a support either side of the expansion joint within 600mm.

Specific recommendations covering the spacing of expansion couplers and the setting gap at the time of installation are given in the General Technical Section.


Coupler Type: EXP
Part Number: SW△-EXP-○





Installation gap required
– see General Technical
Section for more details

**SUPPORTS REQUIRED WITHIN
600mm OF THE JOINT**



Expansion Guide (EFC-EXP)

When installed with expansion couplers, the Speedway Cable Ladder should be secured to the supporting structure using the Speedway Expansion Guide. Part Code: SW-EFC-EXP-○

△ = Select a System Type

○ = Select a Finish & Material

Finishes & Materials:

GA

SS

GX

GW

Supplied with:

**FIXING
SETS x8**

70

HOW TO ORDER

SW5 - EXP - GX
System Type Coupler Type Finish

Support Reduction Expansion Coupler

Speedway Support Reduction Expansion Couplers (SREC) are recommended for those installations where the maximum and minimum temperatures are such that the expansion and contraction of the cable ladder installation is a consideration and where it is not possible to provide support within 600mm of the expansion joint.

Capable of carrying the full load of the Speedway Cable Ladder at the expansion joint, each expansion coupler is designed to allow for a maximum movement of 75mm.

Speedway Support Reduction Expansion Couplers are supplied singly and come complete with all necessary ladder fixings (8 fixing sets per coupler).

Specific recommendations covering the spacing of expansion couplers and the setting gap at the time of installation are given in the General Technical Section of the catalogue.

Coupler Type: SREC

Part Number: SW△-SREC-○



Expansion Guide (EFC-EXP)

When installed with expansion couplers, the Speedway Cable Ladder should be secured to the supporting structure using the Speedway Expansion Guide. Part Code: SW-EFC-EXP-○

△ = Select a System Type

○ = Select a Finish & Material

Finishes & Materials:



Supplied with:

**FIXING
SETS x8**



ACCESSORIES

The Speedway Cable Ladder System is complemented by a range of accessories designed to aid installation and to add additional functionality & flexibility to the Speedway Cable Ladder System.

From versatile fixing clamps and brackets to junction box mounting plates and instrumentation tubing clamp plates, the Vantrunk range of Speedway Accessories have been designed over many years to represent cost-effective & practical solutions in the real installation environment.

External Flange Clamp

The External Flange Clamp (EFC) forms a simple but effective means of connecting Speedway Cable Ladder and Fittings to the supporting structure.

Designed for use with either channel (BS 6946 strut type) or structural steelwork, the external flange clamp has an M10 clearance hole.

Forming a secure clamping attachment onto the bottom flange of the Speedway profile, the external

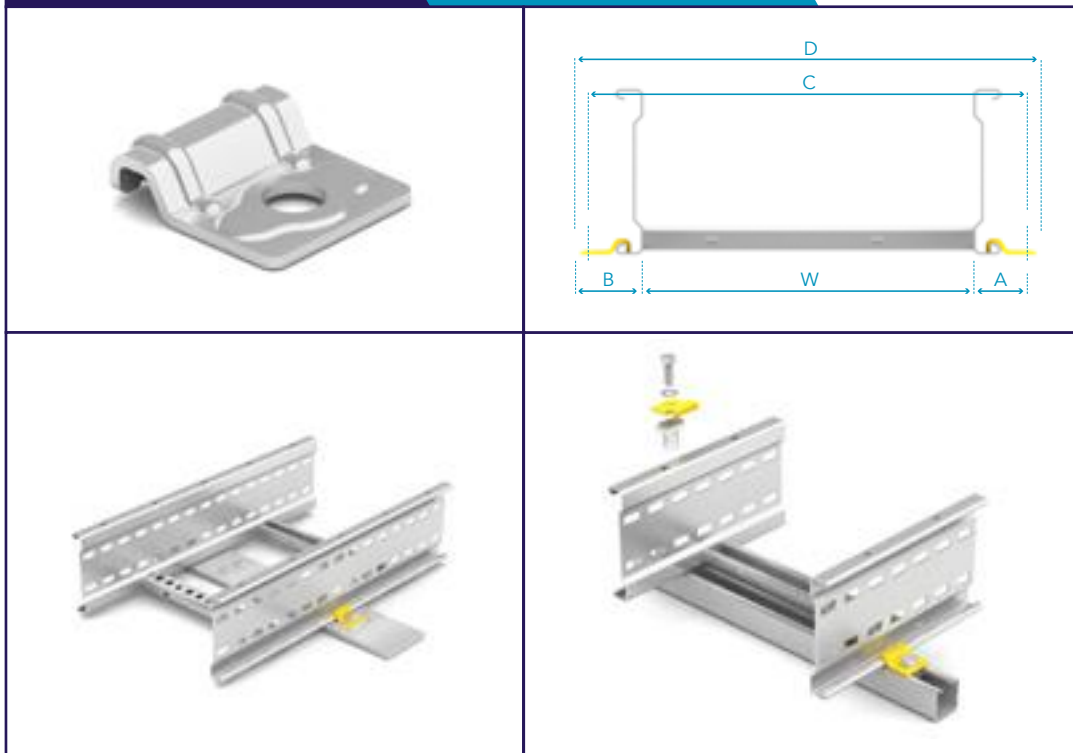
flange clamp can be used with all Speedway SW4, SW5, & SW6 cable ladder and fittings.

The External Flange Clamp is suitable for securing horizontal runs of Speedway Cable Ladder and Fittings in the horizontal plane.

External Flange Clamps are not suitable for supporting Speedway Cable Ladder installed as part of a vertical run.

Accessory Type: EFC

Part Number: SW-EFC-○



The following table gives the recommended fixing hole centres and general dimensions when using External Flange Clamps.

Dimensions (mm)			
A	B	C	D
44.5	56	W+89	W+116

W = System Width

Finishes & Materials:



Supplied with:

**FIXING
SETS x0**

MOUNTING FIXINGS
NOT INCLUDED

The minimum thread length for the M10 fixing bolt is 22mm plus the thickness of the supporting steelwork. Refer to the table below for details of the fixing bolts.

Part Number	Thread Length	Description
M10x25-HS-○	25	M10 x 25 Hex Head Bolt
M10x30-HS-○	30	M10 x 30 Hex Head Bolt
M10x35-HS-○	35	M10 x 35 Hex Head Bolt
M10x40-HS-○	40	M10 x 40 Hex Head Bolt

○ = Select a Finish & Material

Adaptable Fixing Bracket

The Speedway Adaptable Fixing Bracket (AFB) provides a bolted connection between the supporting structure and the Speedway Cable Ladder & Fittings.

The adaptable fixing bracket is recommended for use in supporting vertical runs of Speedway Cable Ladder and Fittings and for applications where the Speedway Cable Ladder is edge-mounted (i.e. installed in the vertical plane running horizontally).

The adaptable fixing bracket gives multiple fixing options for attaching and securing Speedway Cable Ladder and Fittings.

Forming a secure bolted connection into the lower row of slots, the adaptable fixing bracket is suitable for use with Speedway SW4, SW5, & SW6 Cable Ladder and Fittings.

For those applications where space is limited, the Adaptable Fixing Bracket can be fitted internally within the Speedway Cable Ladder. The unique design of the Adaptable Fixing Bracket is such that there is no decrease in the effective loading area of the cable ladder when installed in this manner.

The adaptable fixing bracket can also be used singularly or in pairs to suspend Speedway Cable Ladder from threaded rod. For Speedway SW4 & SW5 Cable Ladder, the adaptable fixing bracket forms a simple but effective end connector to walls and floors.

The adaptable fixing bracket is supplied with one ladder fixing as standard.

Accessory Type: AFB

Part Number: SW-AFB-○



Adaptable fixing bracket used to secure Speedway cable ladder to structural steelwork

Adaptable fixing bracket can be fitted internally to save space



Adaptable fixing bracket used to secure Speedway cable ladder to channel

Accessory Type: AFB

Part Number: SW-AFB-○

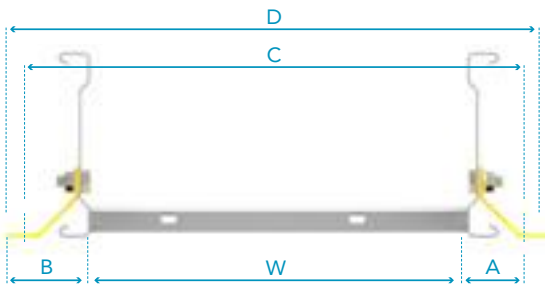


Safe working load 300kg per pair of adaptable fixing brackets when supporting edge mounted Speedway cable ladder



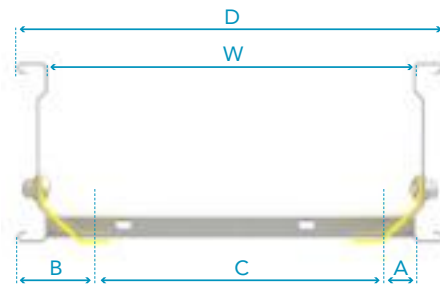
Safe working load 215kg per pair of adaptable fixing brackets when supporting Speedway cable ladder installed as part of a vertical run

External



Adaptable fixing bracket located externally on cable ladder

Internal



Adaptable fixing bracket located internally on cable ladder

These tables give the recommended fixing hole centres and general dimensions when using adaptable fixing brackets.

Installed Externally

Dimensions (mm)			
A	B	C	D
53.5	67	W+107	W+134

Installed Internally

Dimensions (mm)			
A	B	C	D
39.5	65	W-79	W+50

W = Ladder Width

The minimum thread length for the M10 fixing bolt is 22mm plus the thickness of the supporting steelwork. Refer to the table below for details of the fixing bolts.

Part Number	Thread Length	Description
M10x25-HS-O	25	M10 x 25 Hex Head Bolt
M10x30-HS-O	30	M10 x 30 Hex Head Bolt
M10x35-HS-O	35	M10 x 35 Hex Head Bolt
M10x40-HS-O	40	M10 x 40 Hex Head Bolt

○ = Select a Finish & Material

Finishes & Materials:



Supplied with:

FIXING SETS x1

MOUNTING FIXINGS NOT INCLUDED

Speedway Hold Down Bracket

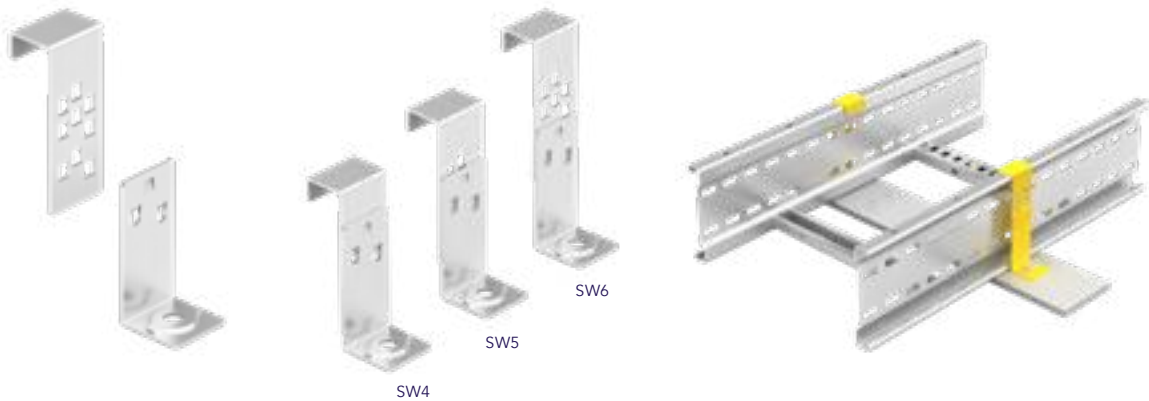
The Speedway Hold Down Bracket (HDB) is a simple but effective means of securing Speedway Cable Ladder and Fittings to the supporting structure. The Hold Down Bracket has a single M10 clearance slot which allows for easy adjustment to suit predrilled fixing holes in the supporting structure. The Hold

Down Bracket is equally suited for installation on channel (BS 6946 strut type) or steelwork.

Hold Down Brackets are not suitable for supporting Speedway Cable Ladder installed as part of a vertical run.

Accessory Type: HDB

Part Number: SW△-HDB-○

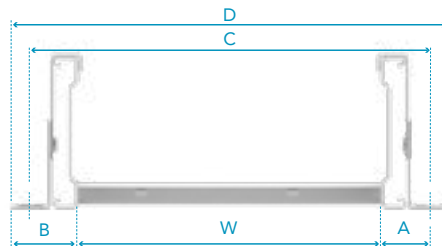


Supplied in two parts, omit System Type e.g. SW-HDB-○



Supplied as a single part, include System Type e.g. SW6-HDB-○

Speedway hold down bracket fitted onto Speedway cable ladder



Dimensions (mm)							
EE SS				GX GW			
A	B	C	D	A	B	C	D
47.5	67.5	W+95	W+135	45.5	65.5	W+91	W+131

W = Ladder Width

Finishes & Materials:



Supplied with:

FIXING SETS x0

MOUNTING FIXINGS NOT INCLUDED

For GY Ladder Systems use EE material

Part Number	Thread Length	Description
M10x25-HS-○	25	M10 x 25 Hex Head Bolt
M10x30-HS-○	30	M10 x 30 Hex Head Bolt
M10x35-HS-○	35	M10 x 35 Hex Head Bolt
M10x40-HS-○	40	M10 x 40 Hex Head Bolt

○ = Select a Finish & Material

The minimum thread length for the M10 fixing bolt is 22mm plus the thickness of the supporting steelwork. Refer to the table above for details of the fixing bolts.

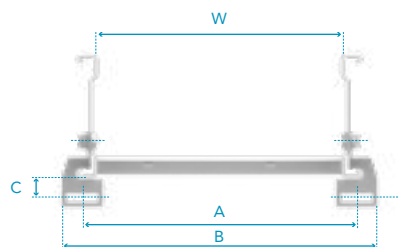
Angle Securing Bracket

Accessory Type: ASB

Part Number: SW-ASB-○



Speedway angle securing bracket fitted onto Speedway cable ladder



Dimensions (mm)		
A	B	C
W+36	W+86	24

W = Ladder Width

Finishes & Materials:



Supplied with:

**FIXING
SETS x1**

MOUNTING FIXINGS
NOT INCLUDED

Part Number	Thread Length	Description
M10x25-HS-○	25	M10 x 25 Hex Head Bolt
M10x30-HS-○	30	M10 x 30 Hex Head Bolt
M10x35-HS-○	35	M10 x 35 Hex Head Bolt
M10x40-HS-○	40	M10 x 40 Hex Head Bolt

○ = Select a Finish & Material

The minimum thread length for the M10 fixing bolt is 22mm plus the thickness of the supporting steelwork. Refer to the table above for details of the fixing bolts.

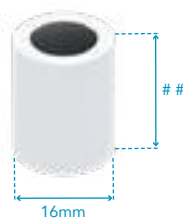
Insulating Assemblies

A comprehensive range of nylon insulating assemblies are available to suit those installations where there is a requirement to provide electrical separation between the Speedway Cable Ladder System and the support structure.

A typical example is a stainless steel Speedway Cable Ladder System mounted on galvanised or painted steel supports.

The insulating assembly is based on nylon base pads, nylon bushes and nylon washers which, when used with the Speedway External Flange Clamp, the Speedway Adaptable Fixing Bracket, or the Speedway Hold Down Bracket totally encapsulate the fixings and provide an insulation barrier between the Speedway Cable Ladder System and the supporting structure.

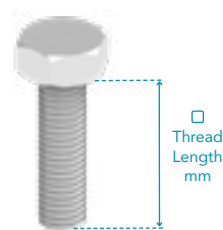
M10 Nylon Bush



315AN01-##: Nylon Bush Length ## = Steel Thickness (mm)

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

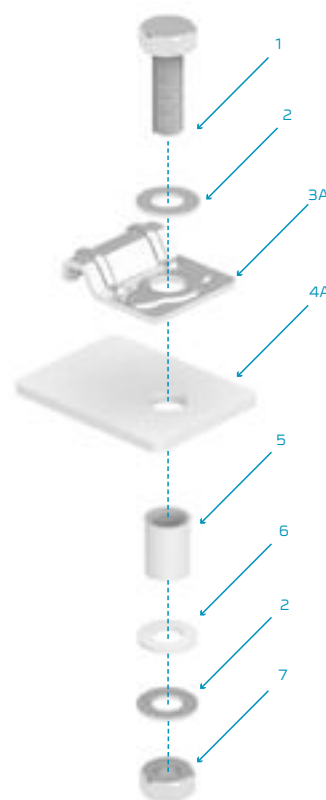
M10 Fixing Bolt



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.

Part Number	Thread Length (□)	Description
M10x25-HS-SS-A4	25mm	M10 x 25 Hex Head Set Screw Stainless Steel
M10x30-HS-SS-A4	30mm	M10 x 30 Hex Head Set Screw Stainless Steel
M10x35-HS-SS-A4	35mm	M10 x 35 Hex Head Set Screw Stainless Steel
M10x40-HS-SS-A4	40mm	M10 x 40 Hex Head Set Screw Stainless Steel

Insulating Assembly Components for External Flange Clamp (EFC)

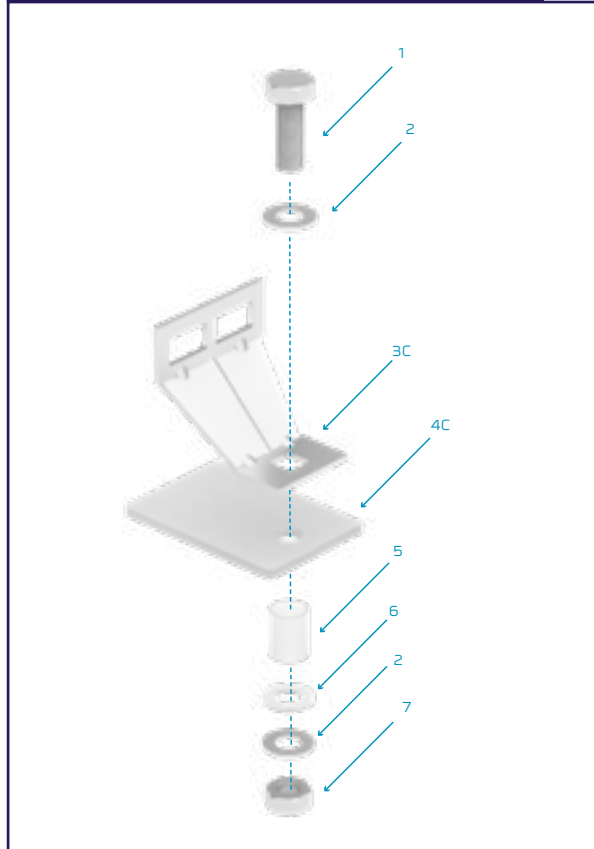


Part Number	Item	Description
M10x□-HS-SS-A4	1	M10 Hex Head Set Screw Stainless Steel - Length = □
M10-FW-SS-A4	2	M10 Flat Washer Stainless Steel
SW-EFC-SS	3A	Speedway External Flange Clamp Stainless Steel
PAD-66.5x50x4-NY	4A	Nylon Pad (66.5 x 50 x 4mm)
BUSH-16x##-NY	5	Nylon Bush - Length = ##
M10-FW-NY	6	M10 Flat Washer Nylon
M10-HN-SS-A4	7	M10 Hex Nut Stainless Steel

For Example:

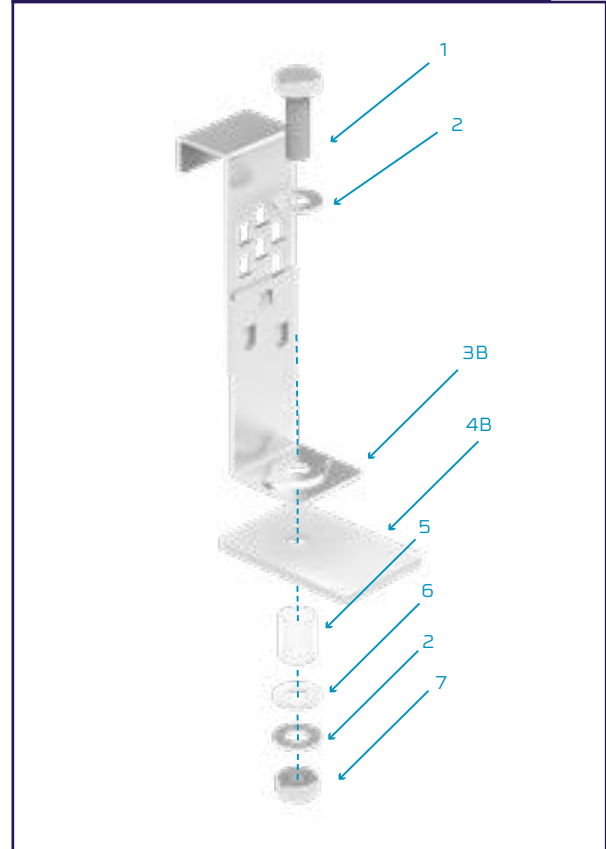
If the thickness of the Steelwork = 12mm
 The length of the Nylon Bush is also 12mm = 315AN01-12
 This means that the Minimum Thread Length of the Fixing Bolt = 22 + 12 = 34mm
 Rounding this figure up to the nearest standard bolt length of 35mm,
 the supplied bolt = SSM10x35HS
 If an AFB is to be used, order: SW-AFB-SS-INS12

Insulating Assembly Components for Adaptable Fixing Bracket (AFB)



Part Number	Item	Description
M10x□-HS-SS-A4	1	M10 Hex Head Set Screw Stainless Steel - Length = □
M10-FW-SS-A4	2	M10 Flat Washer Stainless Steel
SW-AFB-SS	3C	Speedway Adaptable Fixing Bracket (AFB)
PAD-80x55x4-NY	4C	Nylon Pad (80 x 55 x 4mm)
BUSH-16x##-NY	5	Nylon Bush - Length = ##
M10-FW-NY	6	M10 Flat Washer Nylon
M10-HN-SS-A4	7	M10 Hex Nut Stainless Steel

Insulating Assembly Components for Hold Down Bracket (HDB)



Part Number	Item	Description
M10x□-HS-SS-A4	1	M10 Hex Head Set Screw Stainless Steel - Length = □
M10-FW-SS-A4	2	M10 Flat Washer Stainless Steel
SW-HDB-SS	3B	Speedway Hold Down Bracket Stainless Steel
PAD-75x50x4-NY	4B	Nylon Pad (75 x 50 x 4mm)
BUSH-16x##-NY	5	Nylon Bush - Length = ##
M10-FW-NY	6	M10 Flat Washer Nylon
M10-HN-SS-A4	7	M10 Hex Nut Stainless Steel

Structural Connector Bracket

As an alternative to using a vertical adjustable coupler, the Speedway Structural Connector Bracket (SCB) is specifically designed for connecting Speedway Cable Ladder runs to walls and floors.

The Structural Connector Bracket has two 11mm diameter (M10 clearance) fixing holes and is supplied complete with all necessary ladder fixing sets

Accessory Type: SCB

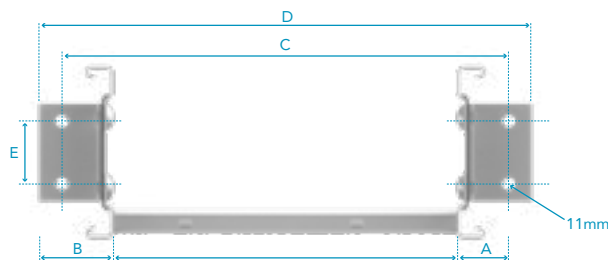
Part Number: SW△-SCB○



Speedway structural connecting bracket securing horizontal cable ladder to vertical channel support



Speedway structural connector bracket securing a horizontal cable ladder to a wall



System Type	Dimensions (mm)				
	A	B	C	D	E
Speedway SW4					
Speedway SW5	47	67	W+94	W+134	33
Speedway SW6					55

W = Ladder Width

△ = Select a System Type ○ = Select a Finish & Material

Finishes & Materials:



Supplied with:

FIXING SETS x4

MOUNTING FIXINGS NOT INCLUDED

Drop Out Bracket

The Speedway Drop Out Bracket (DOB) facilitates connection of vertical ladder to horizontal ladder, allowing on-site use to form vertical tee connections.

Additional slots in the Drop Out Bracket allow secondary tray and other items to be attached to the cable ladder.

Accessory Type: DOB

Part Number: SW△-DOB○



Speedway drop out bracket securing a vertical cable ladder to a horizontal cable ladder run



Speedway drop out bracket securing a vertical cable tray to a horizontal cable ladder run

△ = Select a System Type ○ = Select a Finish & Material

Finishes & Materials:



Supplied with:

**FIXING
SETS x4**

Straight Ladder Divider

Speedway Straight Ladder Dividers (DIV-SL1.5) are available for cable segregation and separation purposes along the length of a cable run.

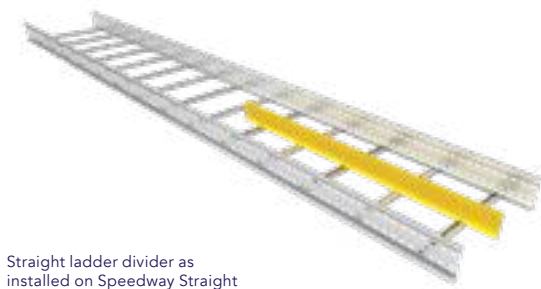
Straight Ladder Dividers are available in three heights to suit Speedway SW4, SW5, & SW6 cable ladder and are 1500mm in length.

Dividers are supplied with 3 fixing sets per divider:

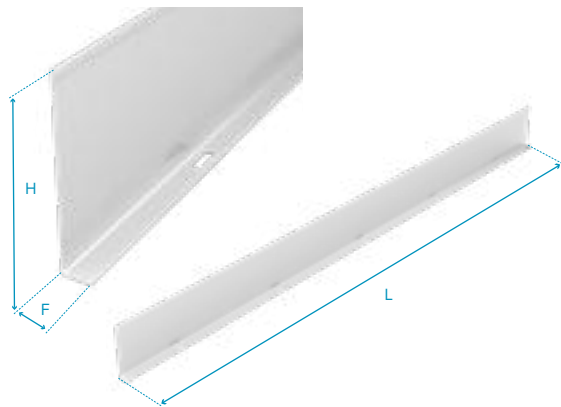
GA – M6x16 mushroom head bolt c-w plain channel nut.

SS – M6x16 pan head bolt c-w plain channel nut and flat washer.

Accessory Type: DIV-SL1.5



Straight ladder divider as installed on Speedway Cable Ladder



Part Number	System Type	Dimensions (mm)		
		L	H	F
SW4-DIV-SL1.5-O	Speedway SW4	1500	70	20
SW5-DIV-SL1.5-O	Speedway SW5		85	
SW6-DIV-SL1.5-O	Speedway SW6		110	

O = Select a Finish & Material

Finishes & Materials:



Supplied with:



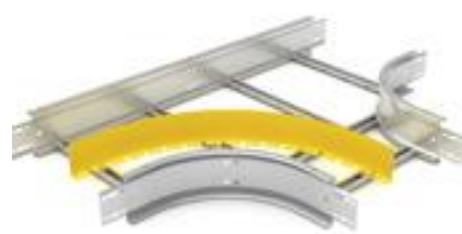
Hot Dip Galvanised Dividers are manufactured out of 1.2mm Gauge Material

Fitting Divider

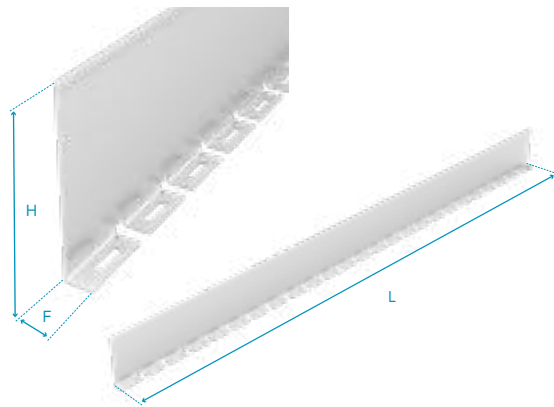
Speedway Fitting Dividers (DIV-FL1.5) are available for cable segregation and separation purposes on fittings. The Speedway Fitting Divider is supplied as a straight length and is notched to allow for forming around flat elbows, tees, crosses & reducers.

Speedway Fitting Dividers are available in three heights to suit Speedway SW4, SW5, & SW6 cable ladder and are 1500mm in length.

Accessory Type: DIV-FL1.5



Fitting divider as installed on a Speedway Equal Tee



Part Number	System Type	Dimensions (mm)		
		L	H	F
SW4-DIV-FL1.5-O	Speedway SW4	1500	70	20
SW5-DIV-FL1.5-O	Speedway SW5		85	
SW6-DIV-FL1.5-O	Speedway SW6		110	

O = Select a Finish & Material

Finishes & Materials:



Supplied with:



Hot Dip Galvanised Dividers are manufactured out of 1.2mm Gauge Material

Riser Divider

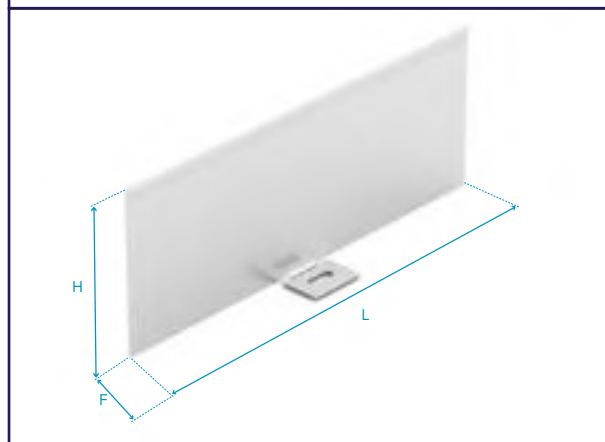
Speedway Riser Dividers (DIV-RL0.3) are available for cable segregation and separation purposes on riser fittings. The Speedway Riser Divider is suitable for use on inside and outside risers as well as the articulated riser. Speedway Riser Dividers are available in three heights to suit Speedway SW4, SW5, & SW6 Risers and are 300mm in length.

Speedway Riser Dividers are supplied with 1 fixing set per divider:

GA – M6x16 mushroom head bolt c-w plain channel nut.

SS – M6x16 pan head bolt c-w plain channel nut and flat washer.

Accessory Type: DIV-RL0.3



Part Number	System Type	Dimensions (mm)		
		L	H	F
SW4-DIVRL0.3-O	Speedway SW4	300	70	20
SW5-DIV-RL0.3-O	Speedway SW5		85	
SW6-DIV-RL0.3-O	Speedway SW6		110	

O = Select a Finish & Material

Finishes & Materials:



Supplied with:



Hot Dip Galvanised Dividers are manufactured out of 1.2mm Gauge Material

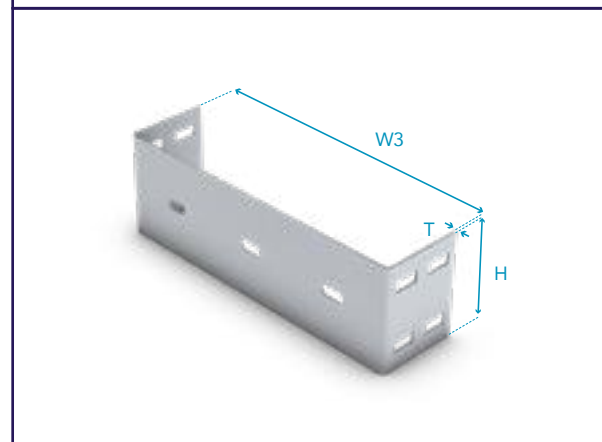
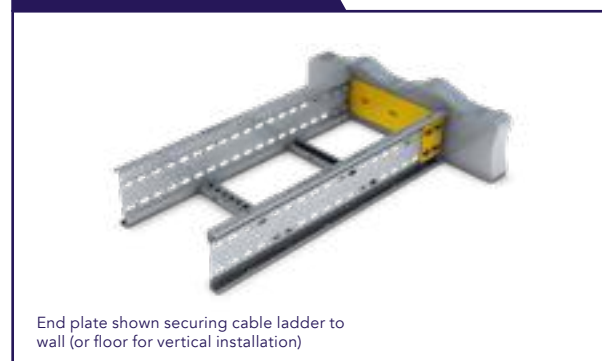
End Plate

Speedway End Plates (EP) provide a neat termination for open ends of cable ladders.

Speedway End Plates are available in widths from 150mm to 900mm as standard. Other widths are available – contact our Sales Team for details.

Each Speedway End Plate has 25mm x 11.5mm fixing slots at 100mm centres which allow the end plate to be used for securing the cable ladder to a wall or floor.

Accessory Type: EP



Part Number	Dimensions (mm)						
	Ladder Width	W3	H			T	No. of fixing slots
			SW4	SW5	SW6		
SWΔ-EP-150-○	150	172	100	80	105	2	2
SWΔ-EP-300-○	300	322					3
SWΔ-EP-450-○	450	472					5
SWΔ-EP-600-○	600	622					6
SWΔ-EP-750-○	750	772					8
SWΔ-EP-900-○	900	922					9

Δ = Select a System Type ○ = Select a Finish & Material

Finishes & Materials:



Supplied with:



Cable Drop Out

Speedway Cable Drop-Outs (CDO) are designed to provide a smooth transition for cable, particularly those with a small diameter, where these enter and leave the cable ladder.

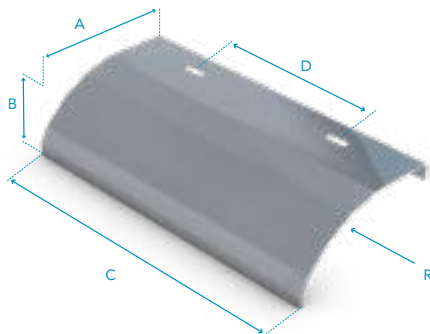
Cable Drop-Outs are available to suit Speedway Cable Ladder of widths from 150mm to 900mm as standard and are common to all Speedway Ladder types. Other widths are available – contact our Sales Team for details.

Cable Drop-Outs are supplied with 2 fixing sets*

GA – M6x16 mushroom head bolt c-w short spring channel nut .

SS – M6x16 pan head bolt c-w short spring channel nut and flat washer.

Accessory Type: CDO



Part Number	Dimensions (mm)				
	A	B	C	D	R
SW-CDO-150-O*	120	60	130	N-A	95
SW-CDO-300-O			280	150	
SW-CDO-450-O			430	300	
SW-CDO-600-O			580	450	
SW-CDO-750-O			730	600	
SW-CDO-900-O			880	750	

○ = Select a Finish & Material

Finishes & Materials:



Supplied with:



*SW-CDO-150 has a single central fixing slot

Protective End Caps

Protective End Caps (PEC) are available for all Speedway profiles.

Manufactured in flexible yellow PVC material as standard, the protective end cap provides a visible and safe means of identifying & covering the open ends of Speedway Cable Ladder and Fittings.

Low smoke-zero halogen finish – contact our Technical Team for details.

Accessory Type: PEC



Protective end caps installed on a Speedway cable ladder

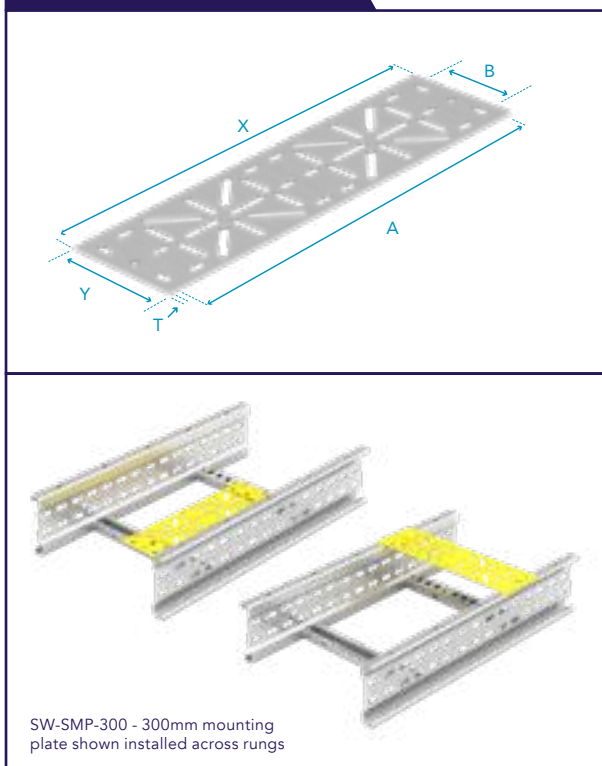


Speedway Mounting Plate

The Speedway Mounting Plate (SMP) provides a means of attaching junction boxes and other items to the speedway Cable Ladder System. Mounting plates are available to suit all Speedway Cable Ladder widths up to & including 900mm for attachment across the face of the cable ladder. The 300mm Speedway Mounting Plate (SW-SMP-300-#) can also be attached between rungs on all widths of Speedway Cable Ladder and can be mounted either within the cable space or below the cable ladder.

Alternative mounting plate designs can be made to order. Contact our Sales Team for more details.

Accessory Type: SMP



Part Number	Dimensions (mm)					
	Ladder Width	X	Y	A	B	T
SW-SMP-150-○	150	200	100	175	60	2
SW-SMP-300-○	300	350		325		
SW-SMP-450-○	450	500		475		
SW-SMP-600-○	600	650		625		
SW-SMP-750-○	750	800		775		
SW-SMP-900-○	900	950		925		

○ = Select a Finish & Material

Finishes & Materials:



Supplied with:



Earth Bonding Strap

The Speedway Earth Bonding Strap (EBS-01) is designed for use in installations where an additional means of earthing or electrical bonding is specified.

The Speedway Earth Bonding Strap comprises of a 16mm² tinned copper braid crimped into M10 tinned copper end connectors.

The Speedway Earth Bonding Strap is common to Speedway SW4, SW5, & SW6.

Accessory Type: EBS-01



Supplied with:

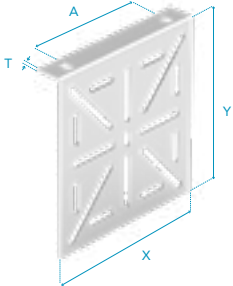





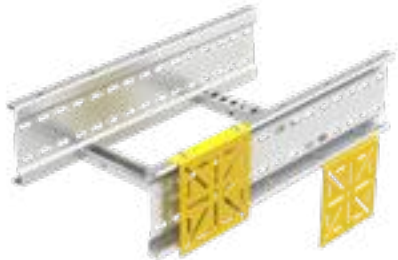



Junction Box Plates

Speedway Junction Box Plates (JBP) provide a versatile means of attaching junction boxes, switches and other equipment directly onto Speedway Cable Ladder and Fittings.

Junction Box Plates are available in five standard sizes to suit all secondary equipment mounting requirements. Junction Box Plates are not supplied with ladder fixings.

Accessory Type: JBP

	 <p>JBP01 Junction Box Plate</p>	 <p>JBP02 Junction Box Plate</p>
 <p>JBP03 Junction Box Plate</p>	 <p>JBP04 Junction Box Plate</p>	 <p>JBP05 Junction Box Plate</p>
 <p>Junction Box Plate JBP01 shown mounted in two possible orientations on Speedway cable ladder</p>		 <p>Junction Box Plate JBP05 shown mounted in three possible orientations on Speedway cable ladder</p>

Part Number	Dimensions (mm)				No. of Fixings
	X	Y	A	T	
SW-JBP01-○	160	165	120	2	2
SW-JBP02-○	210	215	120	2	2
SW-JBP03-○	310	315	120	3	3
SW-JBP04-○	65	90	47	2	1
SW-JBP05-○	150	110	120	2	2

○ = Select a Finish & Material

Finishes & Materials:



Supplied with:



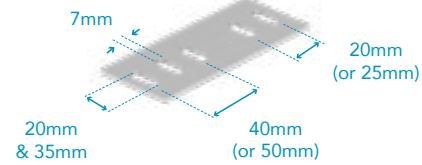
Tube Clamp Plates

Speedway Tube Clamp Plates (TCP) are specifically designed for use with tubing clamp systems which require 7mm wide fixing slots at 20mm or 40mm slot centres.

The tube clamp plates will allow easy and convenient routing of both instrumentation tubing and cables on the same Speedway Cable Ladder run.

Speedway Tube Clamp Plates are also available with fixing slots at 25mm or 50mm slot centres (to order these items replace the '0' in the part number with '5'). The slots in the tube clamp plates are either 20mm x 7mm (TCP01, TCP02, & TCP03) or 35mm x 7mm (TCP04, & TCP05).

Accessory Type: TCP



○ = Select a Finish & Material

Finishes & Materials:



Tube Clamp Plate 01

Supplied with:

**FIXING
SETS x2**

Part Number: SW-TCP01



Tube Clamp Plate 02

Supplied with:

**FIXING
SETS x2**

Part Number: SW-TCP02



Tube Clamp Plate 03

Supplied with:

**FIXING
SETS x2**

The TCP03 is also suitable for the attachment to the Speedway Channel rung and will allow routing of instrumentation tubing within the cable space or along the underside of the Speedway Cable Ladder.

Part Number: SW-TCP03



Tube Clamp Plate 04

Supplied with:

**FIXING
SETS x4**

Part Number: SW-TCP04

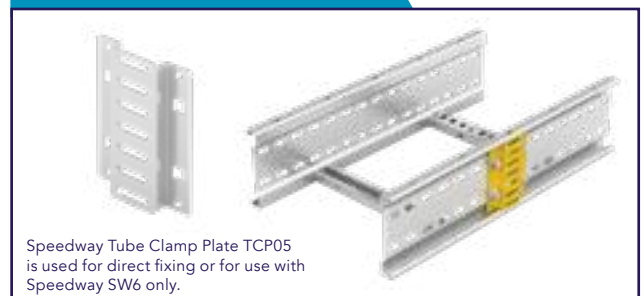


Tube Clamp Plate 05

Supplied with:

**FIXING
SETS x4**

Part Number: SW6-TCP05



Speedway Tube Clamp Plate TCP05 is used for direct fixing or for use with Speedway SW6 only.



SPEEDWAY SUPPORTS

A range of supports, including heavy duty cantilevers and trapeze hangers; designed to work in conjunction with Vantrunk's Speedway Cable Ladder System.

Vantrunk's Speedway Supports are also complemented by the comprehensive Intelok channel support system manufactured to BS 6946. Featuring channel cantilever arms, beam clamps and brackets, which offer solutions to suit all particular site requirements. See the Intelok section for further details.

Heavy Duty Cantilever

The Speedway Heavy Duty Cantilever (HDC) provides a specific means of supporting Speedway cable ladder on vertical fixed structures or channel (strut type) uprights. The heavy duty cantilevers are available to suit Speedway SW4, SW5 & SW6 Cable Ladders for all widths up to and including 900mm wide.

Each Heavy Duty Cantilever has fixing slots to accept the Speedway External Flange Clamps (SW-EFC-#), Adaptable Fixing Brackets (SW-AFB-#) and Hold Down Brackets (SW-HDB-#). The slot pattern allows the adaptable fixing bracket to be fitted either internally or externally on the Speedway cable ladder. The heavy duty cantilever arm back plate has a minimum of two 15mm diameter fixing holes (see table below for details) to accept fixings up to and including M14. The loading table below gives the recommended maximum load for each size of heavy duty cantilever arm for supporting uniformly distributed loads (UDL) such as or for supporting Speedway cable ladder (which should be uniformly loaded to apply two equal point loads onto the cantilever arm).

Speedway Heavy Duty Cantilevers - Safe Working Loads

Part Number	Ladder size	Arm Length mm	Maximum Load kg	
			UDL	Ladder
SW-HDC-150-O	150	300	629	315
SW-HDC-300-O	300	450	419	210
SW-HDC-450-O	450	600	496	248
SW-HDC-600-O	600	750	690	345
SW-HDC-750-O	750	900	871	435
SW-HDC-900-O	900	1050	1045	522

O = Select a Finish & Material

Finishes & Materials:



Heavy Duty Cantilevers with non-standard arm lengths and alternative fixing slot configurations are available – consult our Design Team for further information. Installation dimensions are given in the following table.

Speedway Heavy Duty Cantilevers - Installation Details

Part Number	Ladder Width mm	Maximum Load kg			
		L	No of Holes	A	B
SW-HDC-150-O	150	300	2	70	N/A
SW-HDC-300-O	300	450	2	70	N/A
SW-HDC-450-O	450	600	3	55	40
SW-HDC-600-O	600	750	3	105	40
SW-HDC-750-O	750	900	3	155	40
SW-HDC-900-O	900	1050	3	205	40

O = Select a Finish & Material

Finishes & Materials:



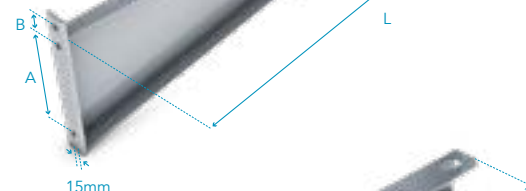
Speedway Heavy Duty Cantilever (HDC) (SW/HDC/600 shown)



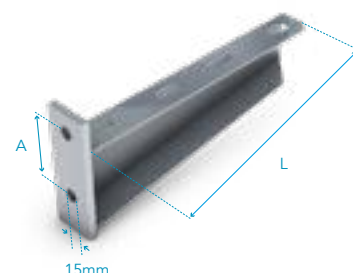
Speedway Heavy Duty Cantilever (HDC) (SW/HDC/300 shown)



Speedway Heavy Duty Cantilever (450mm to 900mm)



Speedway Heavy Duty Cantilever (150mm to 300mm)



SW/HDC/600 Heavy Duty Cantilever shown supporting Speedway SW5/SL/600 cable ladder





SUPPORT SYSTEMS

Ladder Trapeze Hanger

The Speedway Ladder Trapeze Hanger (LTH) provides a dedicated and effective means of installing Speedway cable ladder using a trapeze support arrangement.

Each Ladder Trapeze Hanger has fixing slots to accept the Speedway External Flange Clamps (SW-EFC-#), Adaptable Fixing Brackets (SW-AFB-#) and Hold Down Brackets (SW-HDB-#). The slot pattern allows the Adaptable Fixing Bracket to be fitted either internally or externally on the cable ladder.

The Ladder Trapeze Hanger has 25 x 13.5 end slots to suit the use of M10 or M12 threaded rod hangers. M10 threaded rod hangers can also be utilised for securing the Speedway cable ladder using Speedway External Flange Clamps (SW-EFC), Adaptable Fixing Brackets (SW-AFB) and Hold Down Brackets (SW-HDB). The loading table below gives the recommended maximum load for each size of ladder trapeze hanger when used with Speedway cable ladder (which should be uniformly loaded to apply two equal point loads onto the ladder trapeze hanger).

Speedway Ladder Trapeze Hanger - Safe Working Loads

Part Number	Ladder Width mm	Ladder Load kg
SW-LTH-150-O	150	1193
SW-LTH-300-O	300	
SW-LTH-450-O	450	
SW-LTH-600-O	600	
SW-LTH-750-O	750	
SW-LTH-900-O	900	
SW-LTH-1050-O	1050	

Finishes & Materials:



O = Select a Finish & Material

Non-standard Ladder Trapeze Hangers and alternative fixing slot configurations are available – consult our Design Team for further information. Installation dimensions are given in the following table.

Speedway Ladder Trapeze Hanger - Installation Details

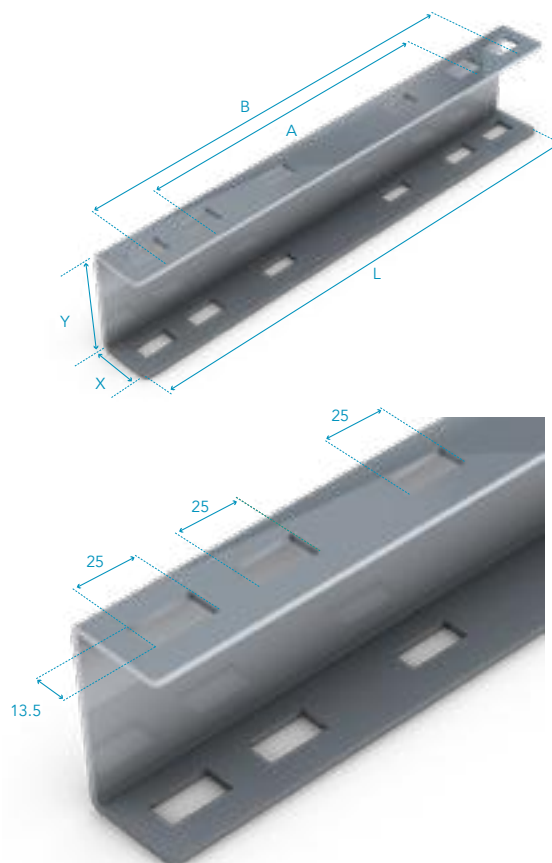
Part Number	Ladder Width mm	Maximum Load kg				
		L	X	Y	A	B
SW-LTH-150-O	150	370	40	75	243	325
SW-LTH-300-O	300	520	40	75	393	475
SW-LTH-450-O	450	670	40	75	543	625
SW-LTH-600-O	600	820	40	75	693	775
SW-LTH-750-O	750	970	40	75	843	925
SW-LTH-900-O	900	1120	40	75	993	1075
SW-LTH-1050-O	1050	1270	40	75	1143	1225

O = Select a Finish & Material

Finishes & Materials:



Speedway Ladder Trapeze Hanger (SW/LTH)



Ladder trapeze hanger suspended on M10 threaded rod. Adaptable fixing bracket (SW-AFB) secured using same threaded rod



Ladder trapeze hanger suspended on M12 threaded rod. Adaptable fixing bracket (SW-AFB) secured using M10 fixings



ENGINEERED FOR EXTREME ENVIRONMENTS

SANDBANK OFFSHORE WIND FARM

The Sandbank offshore wind farm is the second largest offshore wind farm project undertaken by Vattenfall in collaboration with Stadtwerke München. The wind farm extends over a total area of 66 square kilometres.

LOCATION



GERMAN NORTH SEA
90km off the coast of Sylt.

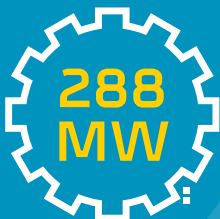
CLIENT



\$1.7bn
OVERALL COST
OF PROJECT



FACT 1



total installed capacity

FACT 2



72
turbines
of 4MW
class

FACT 3

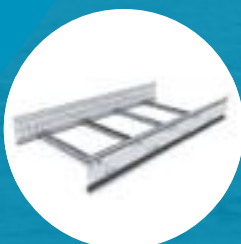


160m
total turbines height
130m
rotor diameter

FACT 4

Covers an area of
66 sq km
in German North Sea

PRODUCTS SUPPLIED



SPEEDWAY



INTELOK CHANNEL

VANTRUNK
SPEEDWAY®
EXTREME CABLE LADDER

Vantrunk's Speedway Cable Ladder and Intelok Support System provides a strong, reliable, easy to install solution providing overall cost savings throughout the project lifespan.

COVERS

Speedway Covers provide mechanical and environmental protection for cables on the cable ladder. Speedway Covers can be supplied in either closed or louvered configurations.

Speedway straight ladder covers are supplied in 1.5m lengths for ease of handling during installation and are 'handed' (i.e. the cover has a different slot and fixing arrangement at each end) but can be installed in either direction as the design of cable ladder fittings covers allow for connection to either end of the straight ladder covers.

Speedway straight ladder covers have an integral joint strip at one end to facilitate connection to abutting straight cable ladder or cable ladder fitting covers. Pre-formed M6 threads are provided at the opposite end of the cover to allow for ease of installation using

M6 threaded bolts. The integral joint strip is fully slotted to allow for adjustment during installation.

Speedway Cable Ladder fittings covers are dimensioned to be an exact fit to the Speedway Cable Ladder fitting and are fitted with integral joint strips on all ends of the cover. Covers for risers will be supplied with easi-bend slots to allow the cover to be formed on site for attachment to the riser fitting.

Straight Ladder Cover



Integral Joint Strip Detail - Straight Ladder Covers for straight ladder have an integral joint strip on one end

Fittings Cover



Integral Joint Strip Detail - Fittings Covers for fittings have an integral joint strip on each end

Flat Elbow Cover



600mm Wide
300mm Radius
Flat Elbow Closed Cover

Riser Cover



Riser Closed Cover
Supplied flat for forming on site

Finish & Material		Gauge
	Stainless Steel	1.0mm
	Hot Dipped Galvanised Mild Steel	1.2mm
	Deep Galvanised Silicon Rich Steel	1.5mm
	Hot Dipped Galvanised Structural Steel	1.5mm
	Deep Galvanised Structural Steel	1.5mm

Covers are supplied as standard in the gauges given in the above table. Other gauges up to and including 2mm are available to order.

Closed Covers

Closed covers fit directly onto the side walls of the Speedway Ladder & fittings to provide mechanical protection and shielding for cables and other equipment within the cable space.

Closed covers of widths of 450mm and above are supplied with Bracing Kits (CBK) (see Bracing Kit Section). Closed Covers are punched with centreline slots to provide for water drainage.

Cover Type: CC



Fitting to Fitting Cover

When joining two abutting cable ladder fittings with a Fitting to Fitting Coupler (FFC) a 200mm gap is created in the cover span. To ensure complete mechanical and environmental protection of the cables, a Fitting to Fitting Cover is required. Fitting to Fitting Covers will be fixed directly to the adjoining covers and will ensure complete protection of cables within the span.

Cover Type: CC-FFC or CL-FFC

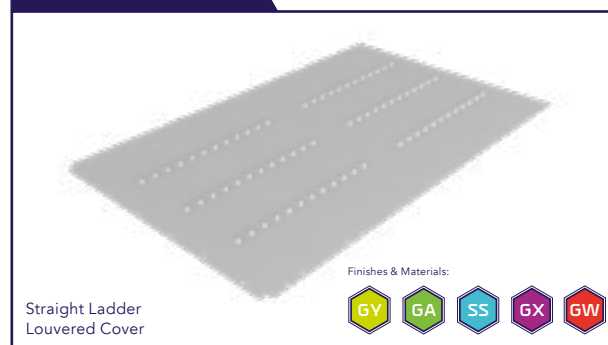


Louvered Covers

Louvered Covers are similar to closed covers but with the addition of louvers for improved air flow through the cable space. Louvered covers are particularly useful where heavy duty power cables are being used. Most traditional cable management systems offer a raised cover for ventilation.

Conventional raised covers have a number of considerations to be taken into account before installing them. First of which is that the cover will be susceptible to being lifted off in excessive winds, also the extra brackets and fixings will add to the installation time of each cover. Raised covers loading performance is far less than the loading performance of a close fitting louvered cover and due to the cover only being supported locally at the fixing point the raised cover is susceptible to sagging which will allow water and debris to build up. Louvered Covers of widths of 450mm and above are supplied with Bracing Kits (CBK) (see Bracing Kit Section).

Cover Type: CL



Peaked Covers

Peaked Covers are closed covers which are formed into a peak with an overall height of 50mm to shed sand, snow, water etc.

Cover Type: CP



Cover Fixing Kits

Speedway covers are supplied complete with the required number of cover fixing kits (VCF3). The cover fixing kits are common to closed, louvered and peaked covers. The covers are secured to the ladder using pre-punched slots which are incorporated into the flanges of all Speedway ladder and fittings.

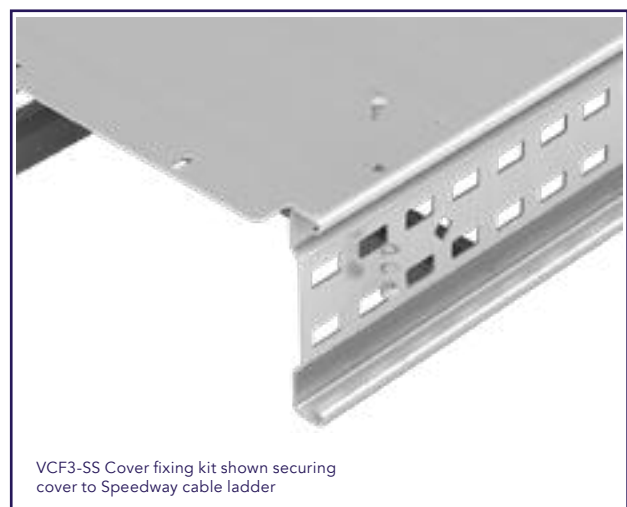
VCF3-G Cover Fixing Kit		VCF3-S Cover Fixing Kit	
			
M6x12-BN-GA	M6x12mm Roofing Bolt & Nut	M6X12-PHS-SS-A4	M6x12mm Pan Head Screw
M6-SW-GA	M6 Internal Shake Proof Washer	M6-FW-SS-A4	M6 Flat Washer
		M6-SW-SS-A4	M6 Internal Shake Proof Washer
		M6-HN-SS-A4	M6 Hex Nut

It is recommended that additional cover kits are ordered to suit contingency requirements during installation (5% is suggested).

The number of fixing kits for securing the cover to the ladder or fitting supplied with each type of cover is given in the following table:

Straight Ladder & Fitting Type	Quantity of Cover Fixing Kits
Straight Ladder	8
Flat Elbows	6
Inside & Outside Risers	1 per facet* with a minimum of 4
Equal & Unequal Tees	9
Crosses	12
Reducers	4

* N° of facets = N° of rungs plus 1. See Risers for details.

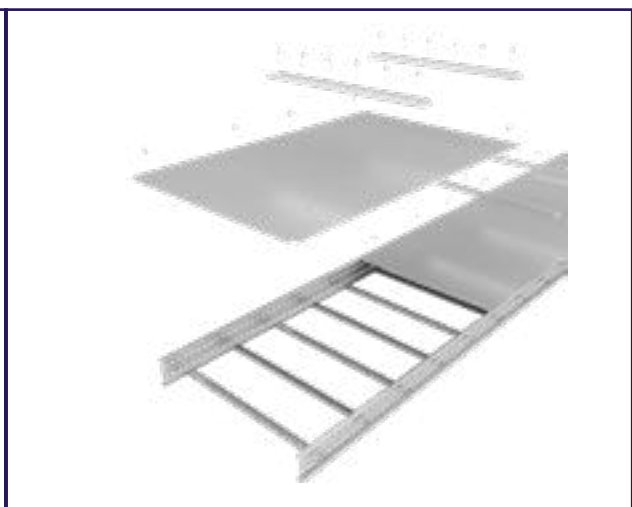
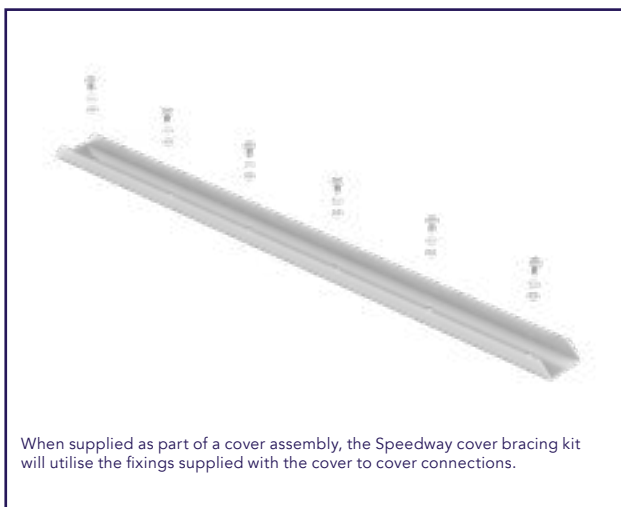


Bracing Kits

Bracing kits are provided for additional strengthening of closed and louvered covers for all widths of 450mm and above. Bracing kits are not required for covers of widths less than 300mm.

All closed and louvered covers of widths 450mm and above have pre-formed M6 threaded fixing holes as standard to accept the fixings for the bracing kits.

It is recommended that additional bracing fixing kits are ordered to suit contingency requirements during installation (10% is suggested).



VCF3-G Bracing Fixing Kit



M6x12-BN-GA	M6x12mm Roofing Bolt & Nut
M6-SW-GA	M6 Internal Shake Proof Washer

* = Supplied but not used

VCF8-S Bracing Fixing Kit



M6x12-PHS-SS-A4	M6x12mm Pan Head & Screw
M6-SW-SS-A4	M6 Internal Shake Proof Washer
M6-FW-SS-A4	M6 Flat Washer

The following table gives the number of bracing kits supplied for each type of ladder & fitting cover:

Ladder & Fitting Type	Number of Bracing Kits	
	Widths \geq 450mm	Radius \leq 600mm
Straight ladder	Widths \geq 450mm	Radius \leq 600mm
30° Flat Elbows	Widths \geq 450mm	Radius $>$ 600mm
45° Flat Elbows	Widths \geq 450mm	Radius \leq 600mm
60° Flat Elbows	Widths \geq 450mm	Radius $>$ 600mm
90° Flat Elbows	Widths \geq 450mm	Radius \leq 600mm
Inside Risers	Widths \geq 450mm	Radius $>$ 600mm
Outside Risers	Not Required	
Equal & Unequal Tees	All Widths \geq 450mm	Radius \leq 600mm
Crosses	All Widths \geq 450mm	Radius \leq 600mm
Reducers	All Widths \geq 450mm	Radius $>$ 600mm
		Not Required

It is recommended that additional bracing kits are ordered to suit contingency requirements during installation (5% is suggested).