

WIRE BASKET SYSTEMS

A comprehensive range of wire basket solutions for the simple routing of power and data cables.



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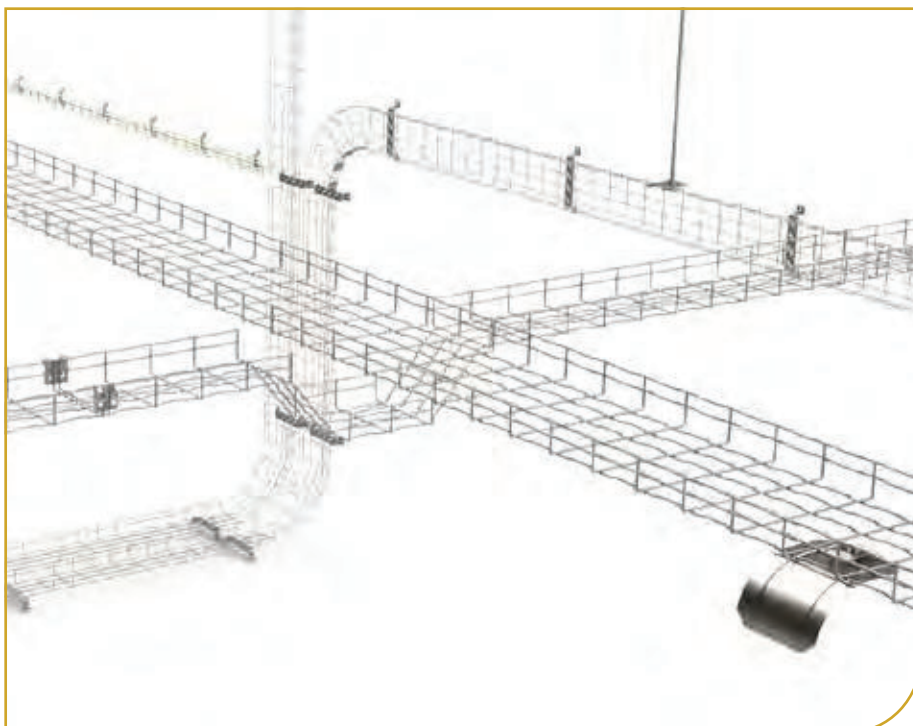
A comprehensive range of wire basket solutions for the simple routing of power and data cables. The range includes high load, and fast-coupling systems. All products are strong and simple to install and offer maximum cable ventilation and a high level of resistance to cable movement.

NEW

- Strong, lightweight and simple to install
- Unique rippled wire to enhance product strength
- Safety edges to prevent cable damage and personal injury
- Corrosion resistance, can be used in harsh environments
- Maximum ventilation, inspection and cleaning of cables
- Extremely flex resistant under load
- Simple manipulations to the wire basket can overcome complicated changes in direction
- Fire resistant to E90 DIN 4101 section 12

Wire basket can be used in a wide range of environments which require the transport of cables.

- Industrial installations
- Commercial installations
- Solar Installations
- Wind Farms
- Railways



Approvals

UL Certification E358301
EN61537 - Cable Management
IEC 61537:2006 Cable management - Cable tray systems and cable ladder systems.



Marshall-Tufflex wire basket is available in a variety of finishes to meet the needs of the installation, whether that be due to the environment or to enhance the style of the installation.

Our wire basket is available in Electro-Zinc as standard, other finishes are available for selected systems but subject to longer lead items. Please contact our Technical Team on +44 (0)1424 856688 for more information.

The below table identifies the finish relevant for the environment.

		EZ Electro-Zinc	HDG Hot-Dip Galvanised Steel	SST Stainless-Steel (316 grade)
Interior	Dry	Recommended	Overspecified	Overspecified
	Humid	Limited resistance	Recommended	Overspecified
	Chemical industry	Not recommended	Limited resistance	Overspecified
	Food industry	Not recommended	Not recommended	Overspecified
Exterior	Urban	Limited resistance	Recommended	Overspecified
	Chemical industry	Not recommended	Limited resistance	Overspecified
	Food industry	Not recommended	Limited resistance	Recommended

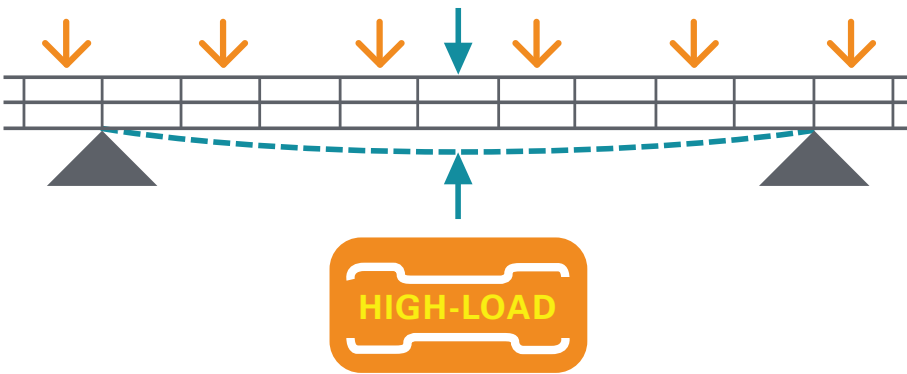
Recommended

Limited resistance, please contact our Technical Team for more details on 01424 856688

Overspecified for the environment

Rippled design

The unique rippled design of the base of the basket allows for the easy threading of cable ties and increased load capacity with greater resistance to flexing.



- Innovative patented design which offers:
- Greater resistance to flexing
 - Greater safe working load
 - Excellent aesthetic finish



A fast-coupling system allowing sections of wire basket to be simply joined together for super-fast installation using the integral couplers.

- Quick and easy assembly - assembles in just 2 steps
- The basket design incorporates integral couplers which gives the system strength and rigidity
- The position of the couplers create a guide making a fast and easy assembly process
- No tools required
- Reduced installation time, saving labour costs
- Two heights available; 65mm and 105mm
- Safety edges to avoid damage to cables
- Optimal solution for installations that do not need big load necessities
- Maximum cable ventilation and a high level of resistance to cable movement
- Ripple design offers a great resistance to flexing



Standard finish
EZ
EZ: Electro-Zinc

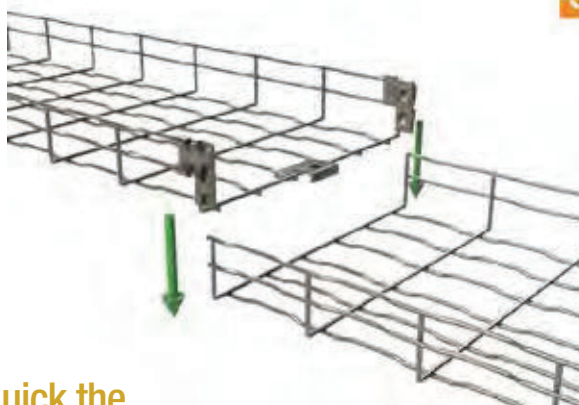
Useful area

Base width	65mm Height		105mm Height	
	in ²	cm ²	in ²	cm ²
60	3.57	23	-	-
100	7.29	47	-	-
150	11.63	75	-	-
200	15.81	102	28.83	186
300	24.34	157	45.11	291
400	32.86	212	61.38	396
500	41.39	267	77.66	501
600	49.91	322	93.93	606

Fast-Coupling

Fast-Coupling Wire Basket is quick and simple to install:

- Two step mounting: **fitting and pressure**.
- The couplers at the end of the tray are used as guide in the assembly process.
- Once the couplers are connected the system offers excellent earth continuity across the joints.



Scan here to see just how quick the Fast-Coupling system is to install

65mm Height



Fast-Coupling Wire Basket 65mm Height

code	description	dimensions mm			pack	
		width 	height 	length 		
MT2/7389	Basket with fast coupling 60x65mm	60	65	3000	8x3m	
MT2/7248	Basket with fast coupling 100x65mm	100	65	3000	8x3m	
MT2/7249	Basket with fast coupling 150x65mm	150	65	3000	6x3m	
MT2/7250	Basket with fast coupling 200x65mm	200	65	3000	6x3m	
MT2/7251	Basket with fast coupling 300x65mm	300	65	3000	6x3m	
MT2/7394	Basket with fast coupling 400x65mm	400	65	3000	2x3m	
MT2/7395	Basket with fast coupling 500x65mm	500	65	3000	2x3m	
MT2/7396	Basket with fast coupling 600x65mm	600	65	3000	2x3m	

105mm Height



Fast-Coupling Wire Basket 105mm Height

code	description	dimensions mm			pack	
		width 	height 	length 		
MT2/7397	Basket with fast coupling 200x105mm	200	105	3000	4x3m	
MT2/7398	Basket with fast coupling 300x105mm	300	105	3000	4x3m	
MT2/7399	Basket with fast coupling 400x105mm	400	105	3000	2x3m	
MT2/7400	Basket with fast coupling 500x105mm	500	105	3000	2x3m	
MT2/7401	Basket with fast coupling 600x105mm	600	105	3000	2x3m	

An innovative wire basket solution to accommodate high cable loads.

- High cable capacity
- Maximum cable ventilation and a high level of resistance to cable movement
- Ripple design offers greater resistance to flexing
- Greater safe working load
- Excellent aesthetic finish
- Quick and easy assembly (see page 68)
- Assemble using our range of Fast Fix Clip on couplers– no bolts required
- Three heights available; 35mm, 65mm and 105mm
- Accessories are universal across both Marshall-Tufflex wire basket systems



Standard finish
EZ
EZ: Electro-Zinc

Wire Basket is available in Electro-Zinc as standard. Finish options: HDG and SST are available but these are subject to minimum quantity orders and longer lead times.

Useful area

Base width	35mm Height		65mm Height		105mm Height	
	in ²	cm ²	in ²	cm ²	in ²	cm ²
60	-	-	3.57	23	-	-
100	4.18	27	7.29	47	-	-
150	6.51	42	11.63	75	-	-
200	8.99	58	15.81	102	29.92	193
300	13.80	89	24.34	157	46.04	297
400	-	-	32.86	212	62.16	401
500	-	-	41.39	267	78.28	505
600	-	-	49.91	322	94.40	609

35mm Height



Standard Wire Basket 35mm Height

code	description	dimensions mm			pack	
		width	height	length		
MT2/3616	Wire Basket 100x35mm	100	35	3000	8x3m	
MT2/3617	Wire Basket 150x35mm	150	35	3000	6x3m	
MT2/3618	Wire Basket 200x35mm	200	35	3000	4x3m	
MT2/3619	Wire Basket 300x35mm	300	35	3000	6x3m	

65mm Height



Standard Wire Basket 65mm Height

code	description	dimensions mm			pack	
		width 	height 	length 		
MT2/3621	Wire Basket 60x65mm	60	65	3000	8x3m	
MT2/3622	Wire Basket 100x65mm	100	65	3000	8x3m	
MT2/3623	Wire Basket 150x65mm	150	65	3000	6x3m	
MT2/3624	Wire Basket 200x65mm	200	65	3000	6x3m	
MT2/3625	Wire Basket 300x65mm	300	65	3000	6x3m	
MT2/4407	Wire Basket 400x65mm	400	65	3000	2x3m	
MT2/4409	Wire Basket 500x65mm	500	65	3000	2x3m	
MT2/3626	Wire Basket 600x65mm	600	65	3000	2x3m	

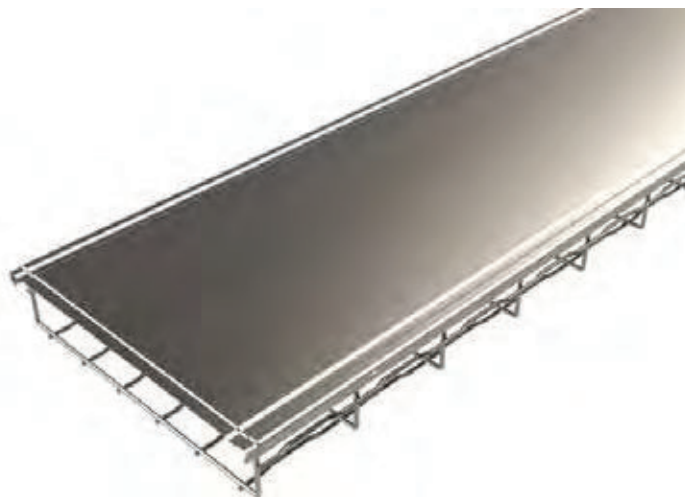
105mm Height



Standard Wire Basket 105mm Height

code	description	dimensions mm			pack	
		width 	length 			
MT2/4953	Wire Basket 200x105mm	200	3000		4x3m	
MT2/4959	Wire Basket 300x105mm	300	3000		4x3m	
MT2/4960	Wire Basket 400x105mm	400	3000		2x3m	
MT2/4961	Wire Basket 500x105mm	500	3000		2x3m	
MT2/6043	Wire Basket 600x105mm	600	3000		2x3m	

- Cover eliminates dirt and dust build-up on cable
- Provides physical protection for cables
- Our cover is suitable for Standard Wire Basket and Fast-Coupling Wire Basket
- Available in Galvanised Steel and Hot Dipped Galvanised Steel finishes only
- To mount the cover no accessories are needed - fixed by pressure



Standard Wire Basket and Fast-Coupling Wire Basket Cover

code	description	dimensions mm		weight (kg)	pack
		width 	length 		
MT2/1312	Cover 100mm	102	3000	0.55	8x3m
MT2/1313	Cover 150mm	152	3000	0.76	8x3m
MT2/1314	Cover 200mm	202	3000	0.98	8x3m
MT2/1316	Cover 300mm	302	3000	1.55	8x3m
MT2/1317	Cover 400mm	402	2000	2.19	6x2m
MT2/1318	Cover 500mm	502	2000	3.11	4x2m
MT2/1319	Cover 600mm	602	2000	3.95	4x2m

All fixing accessories are universal across our Standard and Fast-Coupling Wire Basket systems.

Fixing accessories



Fast Fix Clip on Coupler - 35mm

code	pack
MT2/7271	50



Fast Fix Clip on Coupler - 65mm and 105mm

code	pack
MT2/6217	200



Basket Connector Bolt

code	pack
MT2/4364	400



Basket Connector Bracket

code	pack
MT2/4919	100



Nut and Bolt

code	pack
MT2/4362	100



Ceiling Support Plate

code	pack
MT2/2064	50

Please note these are sold in singles; two are needed for fittings as per the image. Nut and bolt are not supplied.



Wall Bracket Support Plate

code	pack
MT2/0355	10



Conduit Feed Plate

code	pack
MT2/0356	8



Universal Box Plate

code	description	pack
MT2/0358	Large universal box plate	4
MT2/0359	Small universal box plate	8

**Side Support Clip 65mm**

code	pack
MT2/0360	20

**Cable Drop Out Plate**

code	pack
MT2/6451	1

**Bend Connector Bolt**

code	pack
MT2/5059	1

**Side Support Clip**

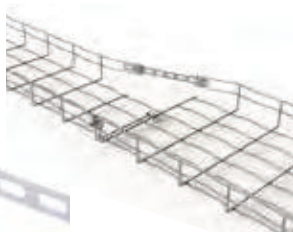
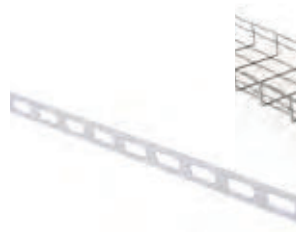
code	pack
MT2/5724	1

**Floor Bracket**

code	pack
MT2/5590	1

**Lighting Attachment Plate**

code	pack
MT2/5906	1

**Multi-union Joint**

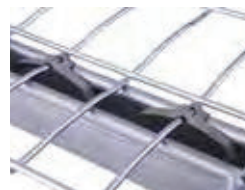
code	pack
MT2/0357	1

**Cutting Tool**

code	pack
MT2/5066	1

**Spray Paint 98% Zinc**

code	pack
MT2/7224	1

**Clip to Secure Basket to Strut**

code	pack
MT2/10284	100

**Variable Support Bracket**

code	pack
MT2/6477	20

**M8 Threaded Rod**

code	pack
MT2/3397	50x1m

**M8 Nut**

code	pack
MT2/0338	100

**Earth Bonding Connector**

code	pack
MT2/6797	10

**Divider Fillet**

code	description	pack
MT2/3476	35mm	10 x 3m
MT2/2066	60mm	10 x 3m
MT2/3478	100mm	10 x 3m

**Securing Plate**

code	pack
MT2/0337	100

**Fast Fix Wall Bracket**

code	description	pack
MT2/7230	Fast fix wall bracket 100mm	1
MT2/7231	Fast fix wall bracket 150mm	1
MT2/7232	Fast fix wall bracket 200mm	1
MT2/7233	Fast fix wall bracket 300mm	1
MT2/7234	Fast fix wall bracket 400mm	1

**Lighting Attachment Plate**

code	pack
MT2/5906	1

Ceiling brackets



Fast Fix Ceiling Bracket

code	description	pack
MT2/7235	Fast fix ceiling bracket 100mm	1
MT2/7236	Fast fix ceiling bracket 150mm	1
MT2/7237	Fast fix ceiling bracket 200mm	1
MT2/7238	Fast fix ceiling bracket 300mm	1

Suspension frames



Fast Fix Suspension Frame

code	description	pack
MT2/3630	Fast fix suspension frame 100mm	1
MT2/1073	Fast fix suspension frame 150mm	1
MT2/1074	Fast fix suspension frame 200mm	1
MT2/1076	Fast fix suspension frame 300mm	1
MT2/3629	Fast fix suspension frame 400mm	1
MT2/1077	Fast fix suspension frame 500mm	1
MT2/5941	Fast fix suspension frame 600mm	1



Support Strut Leg

code	leg height	pack
MT2/5602	142mm	1

Material

Electrogalvanised (ELECTROZINC/EZ)

A steel base coated with a zinc layer by electrolysis, by means of submerging the lengths in a bath composed of a zinc solution, in accordance with BS EN ISO 2081. Depending on the type of zinc layer, it shall have a different degree of protection on the steel, avoiding corrosion and enhancing the visual appearance of the length. This treatment is carried out once the length has been formed. The IEC 61537 Standard classifies the degree of resistance to corrosion of the system's components depending on the steel's electrolytic covering, belonging to Class 1 those with a minimum thickness of 5µm and to Class 2 those of 12µm. Marshall-Tufflex uses Class 2 as its standard material in order to guarantee the quality of its products against corrosion. This treatment is used in dry environments free of pollutants.

Hot Dip Galvanised Steel (HDG)

Laminated or rust removed galvanised after forming steel according to BS EN ISO 1461 Standard. The steel's protection is covered by a zinc coating which varies depending on the steel's thickness, offering a uniform covering. The zinc coating's thickness depends on the thickness of the base material. The IEC 61537 Standard classifies the resistance against corrosion of these galvanised steels as Class 5 for the covering of 45µm, Class 6 for 55µm, Class 7 for 70µm and Class 8 for 85µm. Hot dip galvanised steel is used in humid environments, granting a high protection during adverse atmospheric situations, light chemical situations, light marine situations and urban situations.

Stainless Steel AISI 316 (I316)

Denominated 14401 according to the numerical classification established by the BS EN 10088 Standard. Steel's protection happens due to the great affinity which metals such as chromium have with oxygen, which gives place to the creation of a protective chromium oxide layer which avoids the corrosion of iron. Type I316 stainless steels are similar to type 1304, but they contain a 2.5% of molybdenum which confers it a greater resistance to localised corrosion. It is ideal for use in very corrosive environments, even at high temperatures. Under special conditions, and always under order, there is the possibility of conducting a passivation process. Passivation is a treatment which enhances stainless steel's protection against corrosion by means of forming a relatively inert film on the surface of a material which

protects it against the action of external agents. The passivation film or layer does not allow these agents to interact, reducing or stopping the chemical reaction from happening.

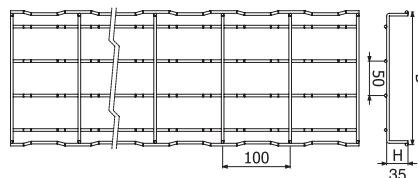
IEC 61537 Standard classifies this steel's resistance to corrosion as Class 9B without the passivation treatment and as Class 9D with the passivation treatment.

Stainless Steel AISI 316L, denominated 14401 according to the numerical classification established by the BS EN 10088 Standard has the same characteristics regarding corrosion as steel AISI 316, but offers a higher degree of welding and easier forming of the lengths with a thickness of more than 6mm.

Dimensions

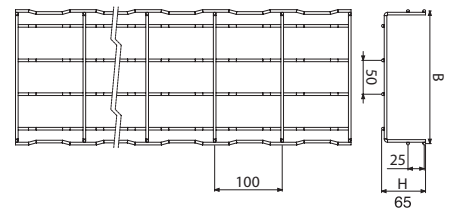
Height 35mm

Standard Wire Basket



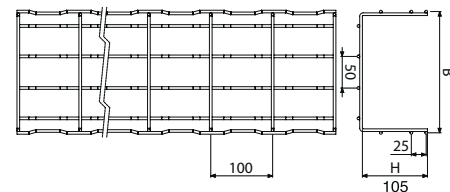
Height 65mm

Standard Wire Basket and Fast-Coupling Wire Basket

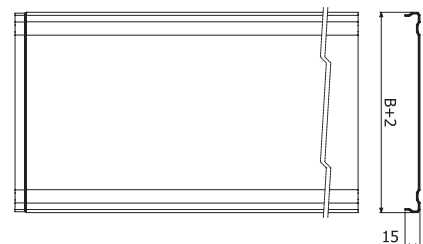


Height 105mm

Standard Wire Basket and Fast-Coupling Wire Basket



Cover



Working temperature

	Minimum working temperature	Maximum working temperature	According to Standard
Standard Wire Basket 35mm	-50°C	+150°C	IEC 61537
Standard Wire Basket 65mm	-50°C	+150°C	IEC 61537
Standard Wire Basket 105mm	-50°C	+150°C	IEC 61537
Fast-Coupling Wire Basket 65mm	-50°C	+150°C	IEC 61537
Fast-Coupling Wire Basket 105mm	-50°C	+150°C	IEC 61537

Resistance to corrosion

Atmospheric Corrosion

Atmospheric corrosion happens when metal is exposed to liquids, solids or gases, Humidity, salt corrosive gases and dirt are its main factors. Atmospheric corrosion takes place in open air conditions, areas with poor ventilation and marine environments.

Saline corrosion happens when a metallic surface is exposed to different saline concentration levels forming a galvanic pile. At times where the surface is exposed to the lowest degree of saline concentration this will then behave as an anode for the corrosion to take place.

Chemical Corrosion

Chemical corrosion happens when metal is directly exposed to chemical solutions. Depending on the concentration of the solution, contact time, cleaning frequency and ambient temperature the level of corrosion will be higher or lower.

Galvanic Corrosion

Galvanic corrosion is the most common type of corrosion, and happens when two different metals are in contact with one another. When two different metals come into contact a small galvanic pair is created, as one metal acts as an anode the other acts as a cathode. The metal with the most negative reduction potential shall oxidise whilst the metal with the most positive charge shall have less corrosion.

Storage Conditions

The product must be stored in a dry and well ventilated area. The product must not be stored outside even in low humidity conditions.

Free Base Area

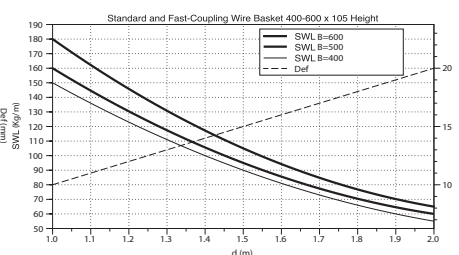
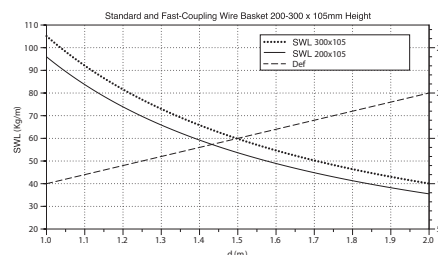
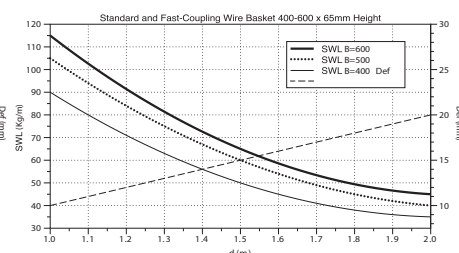
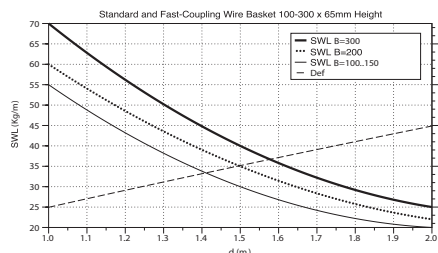
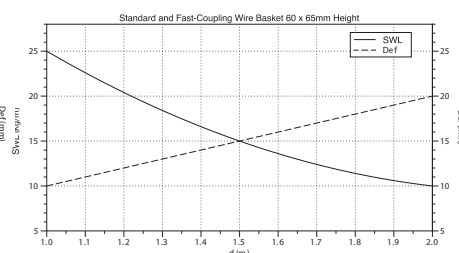
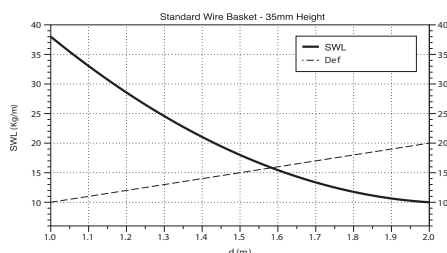
Base size	Classification	Free base area
60	Z	More than 90%
100	Y	Over 80% and up to 90%
150	Y	Over 80% and up to 90%
200	Y	Over 80% and up to 90%
300	Y	Over 80% and up to 90%
400	Y	Over 80% and up to 90%
500	Y	Over 80% and up to 90%
600	Y	Over 80% and up to 90%

To show the installation designer the level of ventilation allowed for the cable tray, the IEC 61537 standard established that the manufacturer has to inform of the percentage of the base 'free' (without material, in solid cable trays this means the "degree of perforation").

Safe working load (SWL)

The safe working load (SWL) is the maximum load which can be applied during normal use, without danger. Therefore, the workload shall always be less than the SWL.

The SWL of our products are calculated in accordance with IEC 61537. For any further information contact our Technical Team in +44 (0)1424 856688.



Load table

Find out the load capacity of all our wire baskets.

We recommend that you plan for extra space in cable pathways during the initial installation to allow capacity for future cable additions.

For spacing factors please refer to current Wiring Regulations BS7671 and all current amendments.

MT Code	Description	System name	Weight kg/m		
			EZ	HDG	SS
MT2/3616	Basket 100x35mm	Standard Wire Basket	0.55	0.60	0.66
MT2/3617	Basket 150x35mm		0.69	0.73	0.72
MT2/3618	Basket 200x35mm		0.83	0.89	1.02
MT2/3619	Basket 300x35mm		1.18	1.39	1.39
MT2/3621	Basket 60x65mm		0.54	0.6	0.66
MT2/3622	Basket 100x65mm		0.78	0.83	0.96
MT2/3623	Basket 150x65mm		0.83	0.89	1.02
MT2/3624	Basket 200x65mm		1.08	1.15	1.32
MT2/3625	Basket 300x65mm		1.59	1.69	1.69
MT2/4407	Basket 400x65mm		1.93	2.05	2.05
MT2/4409	Basket 500x65mm		2.71	2.65	2.56
MT2/3626	Basket 600x65mm		3.12	3.05	2.95
MT2/4953	Basket 200x105mm		1.59	1.69	1.69
MT2/4959	Basket 300x105mm		1.93	2.05	2.05
MT2/4960	Basket 400x105mm		2.71	2.65	2.56
MT2/4961	Basket 500x105mm		3.12	3.05	2.95
MT2/6043	Basket 600x105mm		3.53	3.45	3.34
MT2/7389	Basket with fast coupling 60x65mm	Fast-Coupling Wire Basket	0.54		
MT2/7248	Basket with fast coupling 100x65mm		0.79		
MT2/7249	Basket with fast coupling 150x65mm		0.84		
MT2/7250	Basket with fast coupling 200x65mm		1.09		
MT2/7251	Basket with fast coupling 300x65mm		1.60		
MT2/7394	Basket with fast coupling 400x65mm		1.94		
MT2/7395	Basket with fast coupling 500x65mm		2.72		
MT2/7396	Basket with fast coupling 600x65mm		3.13		
MT2/7397	Basket with fast coupling 200x105mm		1.59		
MT2/7398	Basket with fast coupling 300x105mm		1.93		
MT2/7399	Basket with fast coupling 400x105mm		2.71		
MT2/7400	Basket with fast coupling 500x105mm		3.12		
MT2/7401	Basket with fast coupling 600x105mm		3.53		

EMC and Data

It is recommended to separate power and data circuits by a minimum of 20cm.
(EN 50174-2)

Where power and data circuits must cross, this must be done at 90 degrees.

Wire Basket systems without electrical continuity do not protect against electromagnetic fields. Make sure electrical continuity is preserved by using the appropriate earth bonding accessories.

Electrical continuity

Our Fast-Coupling Wire Basket conforms to IEC 61537. The wire mesh basket has an impedance lower than:

- ⚡ 50mΩ across the joint
- ⚡ 5mΩ per metre in a straight section

Fire Resistance

Marshall-Tufflex and Basor Electric certifies that the wire basket installed with the below mentioned characteristics complies with Class E90 of function maintenances, in accordance with Standard DIN 4102, Section 12.

This system incorporates Standard Wire Basket with a height of 65mm. This system uses Fast Fix Wall Bracket supports fixed to the wall and reinforced on the ceiling using the Variable Support Bracket, M8 Threaded Rod and M8 Nut on one side, as per the below image.



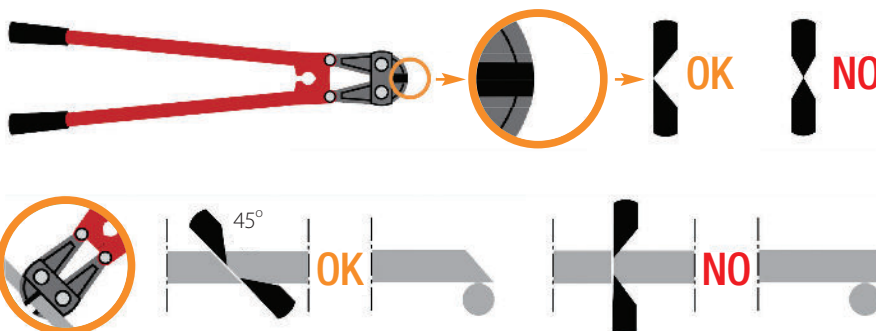
The distance between supports is of 1.2 m and the maximum load is of 10 kg/m.
The system may have one or two levels.

Earth bonding

For earth bonding requirements please refer to the current Wiring Regulations BS7671 and all current amendments.

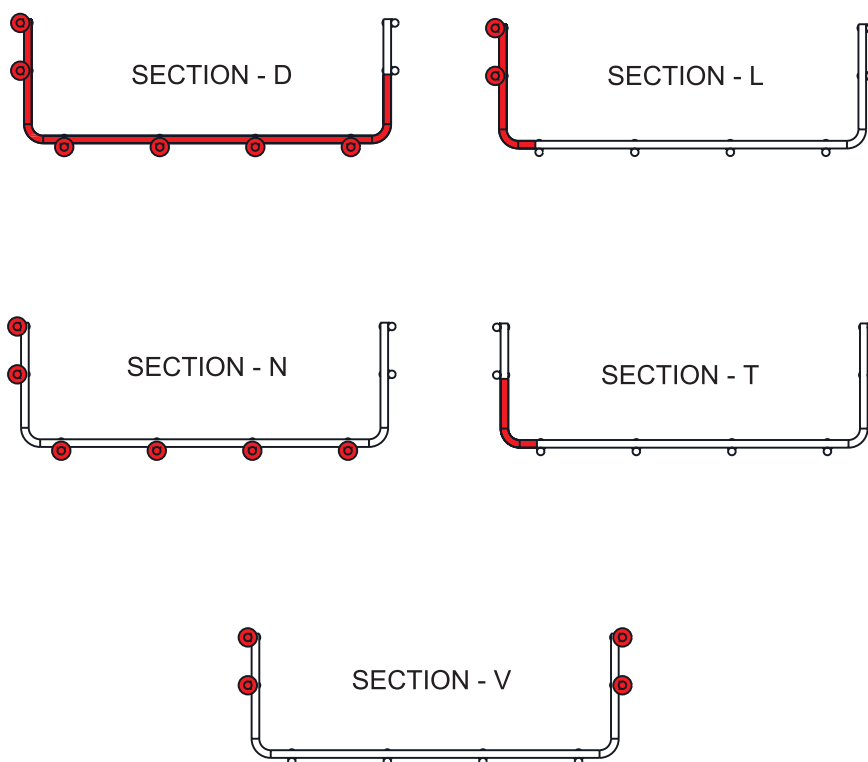
Cutting

Always use asymmetrical cut wire cutters. Cut as close as you can to where horizontal and vertical rods cross each other, as shown.



We recommend always placing the basket on a flat surface to make the cuts.

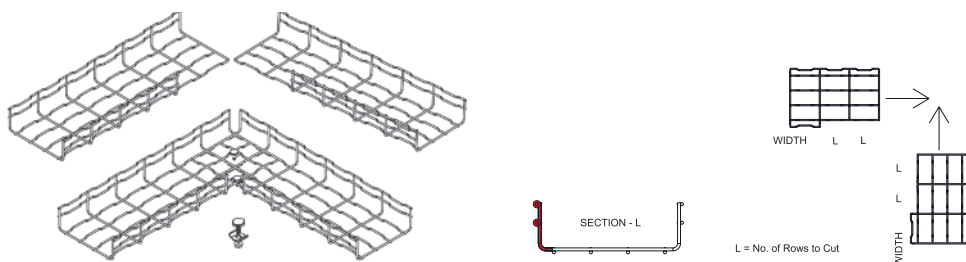
The below drawings show in red the section cuts that are needed for the bends, tees and changing levels as explained in the Installation section on pages 97-99.



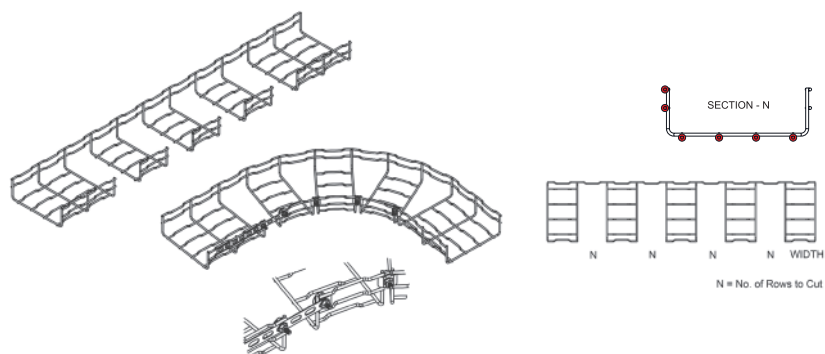
Installation

The following drawings show in red the sections that should be removed to make the associated join or bend.

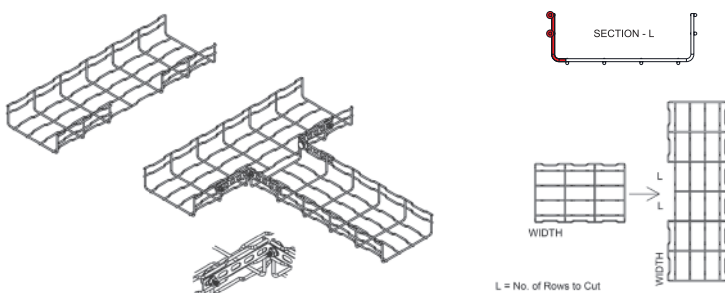
Horizontal Bend From Two Straight Sections



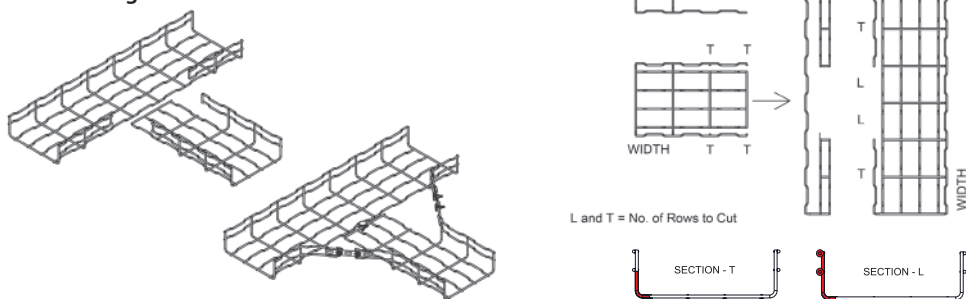
Horizontal Bends Long Radius – Right angle



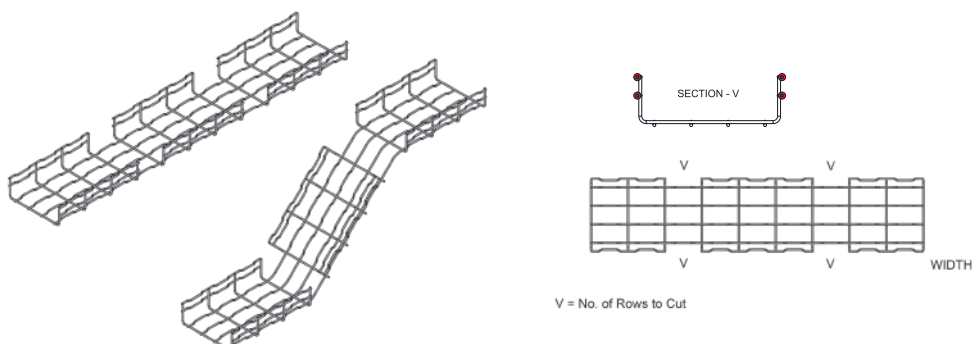
Horizontal Tees



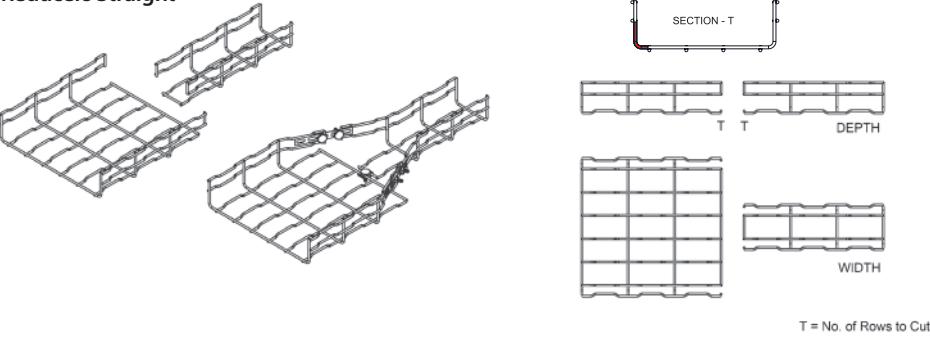
Tee with Large Radius



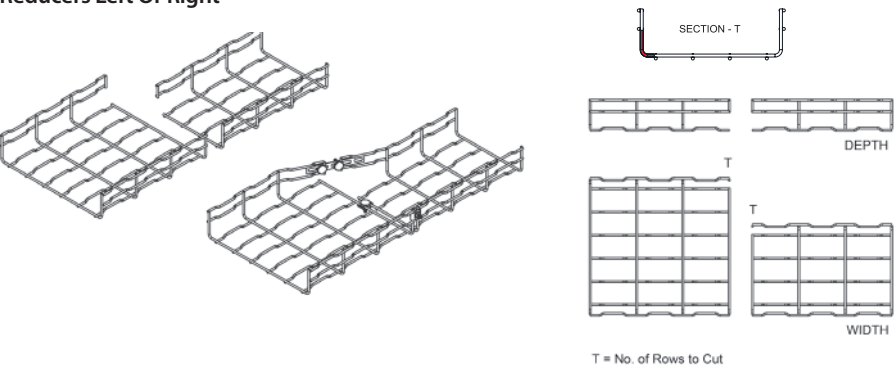
Vertical Inside and Outside Bends



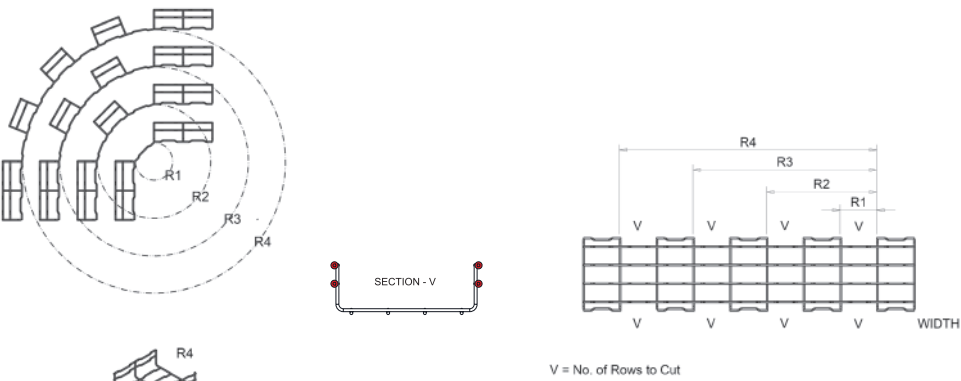
Reducers Straight



Reducers Left Or Right



Vertical Bends



Radius	Radius diameter	Number of rows that will need to be cut
R1	64mm	1 row
R2	190mm	2 rows
R3	320mm	3 rows
R4	445mm	4 rows