

Marshall-Tufflex

Twin165 Trunking

CI/SFB	
(62)	In6



www.marshall-tufflex.com



Twin165 Trunking from Marshall-Tufflex

Twin165 is a mid-size (160 x 65mm) two-compartment perimeter trunking system, designed as a compact variation of Twin Plus. Twin165 offers high capacity for Cat 6 and Cat 6a data cabling for specification in commercial, industrial and educational environments.

- Cat 6 and Cat 6a compliancy
- Full segregation for data cables
- Compliance with Part M of the UK Building Regulations
- Compatibility with MT32 Prefabrication Wiring Systems
- Antimicrobial and screened options available

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Twin165 Trunking



Twin165 Trunking showing a Schuko socket and data fitting

Twin165

Twin165 is a durable and robust trunking with an ergonomically pleasing design. It is especially useful in high traffic environments.

- Two compartment segregated trunking with a high capacity data compartment allowing quick and easy cable installation without kinking or bending
- Bend radius of 50mm suitable for Cat 6 and Cat 6a cabling installation
- Unique, lockable and adjustable internal and external bends with +/- 10° right angle variation for accommodating normal building tolerances
- Part M compliance available by using contrasting coloured fittings
- Easy to install with pre-drilled fixing points
- Unique copper spray finish provides EMI screening with no reduction of cable capacity
- Fast-fit plug and play electrical wiring can be achieved by using Twin165 in conjunction with Marshall-Tufflex's MT32 Prefabricated Wiring Systems
- In areas where hygiene is a priority, Twin165 Bio provides antimicrobial containment to help stop the spread of infection via surfaces
- Utilises a wide range of standard UK accessories

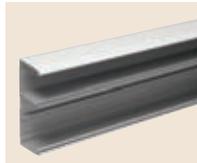
Marshall-Tufflex

Marshall-Tufflex manufactures and supplies a comprehensive range of PVC-U perimeter trunking systems to ensure that whatever the building design and specification there will always be the perfect product to suit.

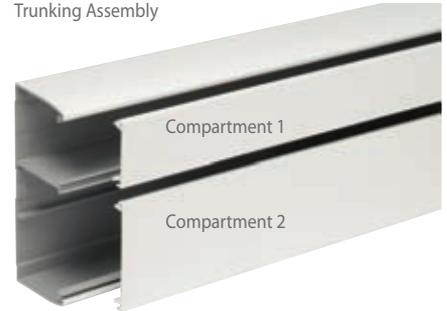
As the UK's leading manufacturer and supplier of cable management systems for the building industry, based here in Britain, we are dedicated to achieving high service levels and reacting quickly to your requirements. Our network of sales engineers is supported by advice from our technical team to ensure that you receive immediate assistance and complete peace of mind.

Twin165 Trunking

PLEASE NOTE: Compartment 1 (comp 1) is the smaller compartment and Compartment 2 (comp 2) is the larger compartment. When ordering end caps, flat angles and tees please take care to ascertain which compartment is installed uppermost (top) so that you order the correct version for your installation.



Trunking Assembly



Description	Base Unit	Cover Small (compartment 1)	Cover Large (compartment 2)
Product Code	AY1120WH	AY1130WH	ETL1WH
EMI (comp 1) Product Code	AY1121CSWH	AY1131CSWH	ETL1CSWH
Bio Product Code	AY1124BIOWH	AY1134BIOWH	ETL1BIOWH
EMI (comp 1) and Bio	AY1125CSBIOWH	AY1135CSBIOWH	ETL1CSBIOWH
Depth	65mm	-	-
Pack	4 x 3m (EMI 1 x 3m)	8 x 3m (EMI 1 x 3m)	8 x 3m (EMI 1 x 3m)

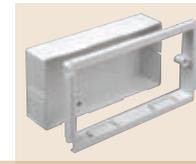
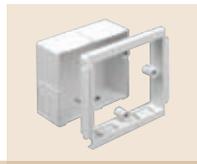


Description	Coupler	End Cap LH (comp 1 top) End Cap RH (comp 2 top)	End Cap RH (comp 1 top) End Cap LH (comp 2 top)	External Bend Adjustable	Internal Bend Adjustable
Product Code	AY1210WH	AY1220WH	AY1230WH	AY1250WH	AY1240WH
EMI (comp 1) Product Code	AY1211CSWH	AY1221CSWH	AY1231CSWH	AY1251CSWH	AY1241CSWH
Bio Product Code	AY1214BIOWH	AY1224BIOWH	AY1234BIOWH	AY1254BIOWH	AY1244BIOWH
EMI (comp 1) and Bio	AY1215CSBIOWH	AY1225CSBIOWH	AY1235CSBIOWH	AY1255CSBIOWH	AY1245CSBIOWH
Depth	65mm	65mm	65mm	65mm	65mm
Pack	1	1	1	1	1



Description	Flat Angle Up (comp 1 top) Flat Angle Down (comp 2 top)	Flat Angle Down (comp 1 top) Flat Angle Up (comp 2 top)	Flat Tee Up (comp 1 top) Flat Tee Down (comp 2 top)	Flat Tee Down (comp 1 top) Flat Tee Up (comp 2 top)
Product Code	AY1310WH	AY1320WH	AY1330WH	AY1350WH
EMI (comp 1) Product Code	AY1311CSWH	AY1321CSWH	AY1331CSWH	AY1351CSWH
Bio Product Code	AY1314BIOWH	AY13204BIOWH	AY1334BIOWH	AY1354BIOWH
EMI (comp 1) and Bio	AY1315CSBIOWH	AY1325CSBIOWH	AY1335CSBIOWH	AY1355CSBIOWH
Depth	65mm	65mm	65mm	65mm
Pack	1	1	1	1

Accessories



Description	1 Gang Accessory Box	2 Gang Accessory Box	1 Gang Adjustable Accessory Box	2 Gang Adjustable Accessory Box
Product Code	ESSB1WH	ESSB2WH	EAB1WH	EAB2WH
EMI Product Code	ESSB1SWH	ESSB2SWH	EABS1SWH	EABS1SWH
Depth	30mm	30mm	32-50mm	32-50mm
Pack	20	10	10	5



Description	1 Gang Accessory Plate	2 Gang Accessory Plate	Screening Bonding Strap	*Part M Box Assembly - 1 Gang	*Part M Box Assembly - 2 Gang
Product Code	ESSP1WH	ESSP2WH	ESBS1	ESPM1	ESPM2
Size	-	-	-	32mm	32mm
Pack	10	5	5	1	1

*Part M boxes are available in blue, charcoal and red. Please suffix codes with BU, CH, RD as required

Technical

STANDARDS & APPROVALS

- The Twin165 Trunking is manufactured in accordance with the requirements of BS 4678 PT4 and BS EN 50085 Trunking standards.
- Designed to comply with all the relevant requirements of the latest edition of BS 7671 (IEE Wiring Requirements).
- Marshall-Tufflex's commitment to continuous improvement and quality has been recognised through our certification to BS EN ISO 9001:2000.
- Marshall-Tufflex products that come within the scope of the Low Voltage Directive (LVD) will be CE marked to confirm that they meet the necessary requirements of this directive.
- Bend radius control 50mm.

MANUFACTURE, FIRE PERFORMANCE AND CHEMICAL RESISTANCE

PVC-U and Interior Moulded Fittings

All bases, lids and interior moulded fittings are produced in Extra Super High Impact PVC-U grade material capable of withstanding the most hazardous conditions on site. This material exceeds the most stringent requirements of the British Standards

Characteristics of Marshall-Tufflex Extra Super High Impact PVC-U

Specific Gravity	1.42	
Co Efficient of Linear Expansion	$7 \times 10^{-5}/m/^{\circ}C$	
Water Absorption	Negligible	
Electric Strength	To the requirements of BS 4678, BS EN 50085	
Fire Performance	BS 476 PT6 & PT7	1Y
	BS 4678	PASS
	BS EN 50085	PASS
	UL94	V-0 @ 1.6mm
Oxygen Index	42%	
Tensile Strength	492/562 kg/cm ²	
Insulation Resistance	To the requirements of BS 4678, BS 4607, BS 6099 BS EN 50085	
Chemical Resistance	See below	

Exterior High Impact Fire Retardant ABS

All moulded fittings are manufactured from high impact fire retardant ABS.

Characteristics of Marshall-Tufflex High Impact Fire Retardant ABS

Vicat Softening Point	ISO 306	96°C
Density	1.18g/cm ³	
Material	UL listed	
Fire Performance	BS 4678	PASS
	BS EN 50085	PASS
	UL94	V-0 @ 1.6mm
Water Absorption	DIN53495/L	0.3%

CHEMICAL RESISTANCE

Good chemical resistance to inorganic salt solutions, alkalis, mineral acids (except strong oxidising acids) and some mineral, vegetable and animal based oils. It is attacked by organic solvents such as alcohols, esters, ketones and ethers.

THERMAL PROPERTIES

Marshall-Tufflex trunking is designed to accommodate variations of ambient temperature equating to 5.25mm/3m for a temperature rise of 25°C.

Operating temperatures: -5 to 60°C.
Thermal conductivity 0.19 w/m/OC

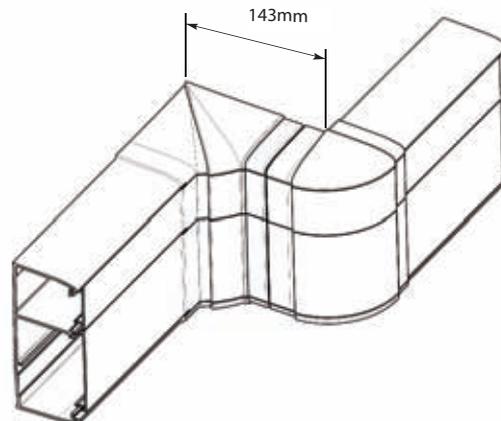
INTERNAL AND EXTERNAL ADJUSTABLE BENDS

Internal and external adjustable bend angles will allow adjustment of plus or minus 10° from 90° angle to accommodate building tolerances.

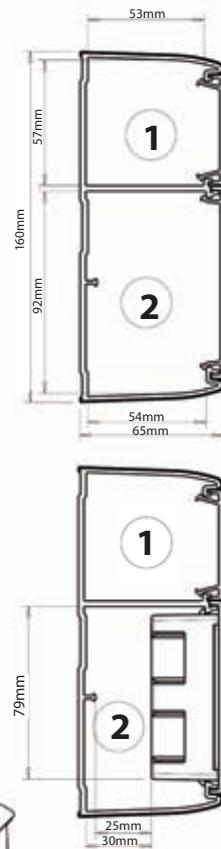
DIMENSIONAL REFERENCE FOR OFFSETS

The minimum set that can be accommodated in the same plane (from internal to external bend) is shown below:

Overall nominal dimension 165mm.



DIMENSIONS



Cross section area – no box
Compartment 1 = 3272mm²
Compartment 2 = 5404mm²

Cross section area – with box
Compartment 2 = 3100mm²

CABLE CAPACITIES

Maximum number of cables allowing for a 45% space factor

Conductor Type	Size	Cable Factor	Compartment 1 No box	Compartment 2 No box	Compartment 2 With box
Stranded PVC Power	1.5mm ²	8.6	171	283	162
Stranded PVC Power	2.5mm ²	12.6	117	193	111
Stranded PVC Power	4.0mm ²	16.6	89	147	84
Stranded PVC Power	6.0mm ²	21.2	69	115	66
Cat.5e UTP	Ø 5.5mm*	30.2	49	81	46
Cat.5e STP	Ø 6.0mm*	36	41	68	39
Cat.6 UTP	Ø 6.5mm*	42.2	35	58	33
Cat.6 STP	Ø 7.0mm*	49	30	50	28

*Typical values, check with manufacturer

Cat 6 and Cat 6a Compliant

The Twin165 cable management system is adaptable to increasing performance levels required of current and future data networks.

- 50mm bend radius control
- Adjustable depth data boxes for Cat 6 and Cat 6a compliance



Twin165 colours and compliance with Part M

Twin165 Trunking offers compliance with Part M of the UK Building Regulations for Visual Impairment by providing a range of different coloured lids, accessory box assemblies with coloured flush mounting plates and adaptors to contrast with standard white. Coloured systems and fittings can also be used as an interesting and simple way to create strong company branding.



Antimicrobial Trunking Solutions

Certain microbial organisms are harmful to people and proliferate to cause infection and disease. There is a need to control these organisms particularly in the type of environment where there is a high risk of cross-infection, such as school laboratories and medical environments.



Where hygiene is a priority, we are now able to offer a range of Bio Trunking Solutions with integral antimicrobial properties that prevent 99.9% of harmful bacteria growth. The special Bio formulation is integral to the PVC-U material and as a result there is no reduction in effectiveness, even if scratched or damaged.

Twin165 is compatible with MT32

Marshall-Tufflex's MT32 Prefabricated Wiring system, incorporating its unique 32Amp MT32 connector technology, is designed for compatibility with the majority of Marshall-Tufflex trunking ranges. MT32 provides a fast fit solution that enables complete pre-wired, pre-tested, plug and play wiring installation from main distribution boards to final accessories, outlets or applications.



Environmental



Marshall-Tufflex actively pursues a comprehensive programme to develop formulations based on environmentally acceptable materials, whilst still maintaining and, where possible, improving on long-term performance properties.

Jim Fletcher, Managing Director

Carbon assessment

The Carbon Trust was set up by Government in 2001 as an independent company. Their mission is to accelerate the move to a low carbon economy by working with organisations to reduce carbon emissions and develop commercial low carbon technologies.

Marshall-Tufflex was assessed by the Carbon Trust in 2007 and received an excellent report.

Sustainability

Twin165 Trunking is manufactured from PVC-U. This material is 100% recyclable and has an excellent Fire Performance. (See BEAMA report on www.beamainstallation.org.uk > technical bulletins)

RECYCLING

Marshall-Tufflex is active in and financially supports various industry bodies in driving the industry forward in the use and control of PVC-U based materials, with the aim of increasing awareness and use of recycled material.



Certificate No. 005393
Registration
BS EN ISO 9001:2008

Quality Management Systems:

Marshall-Tufflex is totally committed to quality and customer satisfaction and the Company is recognised by the British Standards Institution as a firm of Assessed Capability to BS EN ISO 9001:2008.



Certificate No. EMS 539245
Registration
BS EN ISO 14001:2004

Environmental Management Systems:

Marshall-Tufflex is totally committed to achieving high environmental standards. The Company is recognised by the British Standards Institution as a firm of Assessed Capability to BS EN ISO 14001:2004.



Marshall-Tufflex and Vinyl 2010

The company is dedicated to meeting the requirements of Vinyl 2010 and its ongoing programme til 2020 of Voluntary Commitment to the European Commission.

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In pursuance of our policy of continued product improvement Marshall-Tufflex reserve the right to change the design or specification of its products without notification.

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