HepcoMotion[®]

MCS

20 20 24

2010

aluminium frame and machine construction system including **MFS** fencing system



NEN - Additional options Profiles and Mounting options

FOR AMENDMENTS & UPDATES VISIT <u>www.HepcoMotion.com</u> and select literature button

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How the Hepco MCS System saves Time ar	nd Money
	TION SYSTEM
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Introduction

Introduction

The **Hepco**Motion **MCS** System offers an extensive range of aluminium profile sections plus all the connecting elements and accessories the designer could need. These modular components allow an almost infinite possibility of frames to be constructed for use in industrial machinery, guarding, storage and display applications.

The latest addition to the product range is **Hepco's MFS** – Machine Fencing System (see page 35). Fully compatible with the MCS ranges it provides economical barriers around machine installations such as gantries, pick and place equipment, floor mounted robot systems or any areas where the exclusion of personnel is required.

Profile machining and frame assembly to customer's drawings is carried out by Hepco with fast deliveries. Alternatively, specific cut or random lengths can be supplied to customers enabling construction of their own system. Frame design and specification is aided by the use of the **MCS CAD 3D** files, available in .dwg and .dxf formats.

Aluminium profiles are manufactured from Al6063-T5 to very close tolerances, and clear coat anodised to a depth of 10 microns, ensuring that frames are both accurate and resistant to scratching or corrosion. All manufacture is covered by full ISO 9001 certification.

The MCS System is particularly effective at replacing traditional welded steel structures at lower overall cost due to the massive time saving involved. Flexibility is increased compared to welded structures, since all elements are re-usable and additions can easily be made to existing designs at any time. Many of the brackets and connecting elements in the MCS System can be used with no machining involved, for maximum simplicity.

Hepco's extensive range of linear systems can also be mounted directly onto the MCS Profile sections and can be pre assembled in our factory to ensure parallelism. Additional accessories including sliding door systems, locks, etc., are available on request.

A full range of polycarbonate panels, clear and coloured, compressed foam panels in various colours as well as welded wire mesh panels – self coloured or powder coated – are available to complete your framework design.

Please contact our Technical Sales Team on 01884 257000 for further details.

Symbols used in this Catalogue

	_		
-	н		
	U	4	

Size of profile T-Slot – specify connecting components to suit



Profile End Tapping Size

Components compatible with other systems. Contact Hepco for details.

The full range of HepcoMotion products can be seen on our website: www.HepcoMotion.com

Application Examples



Exhibition Units

Special Purpose Machines



Access Frameworks



MFS – Machine Fencing System

CAD Frame Drawings

3D Design Package

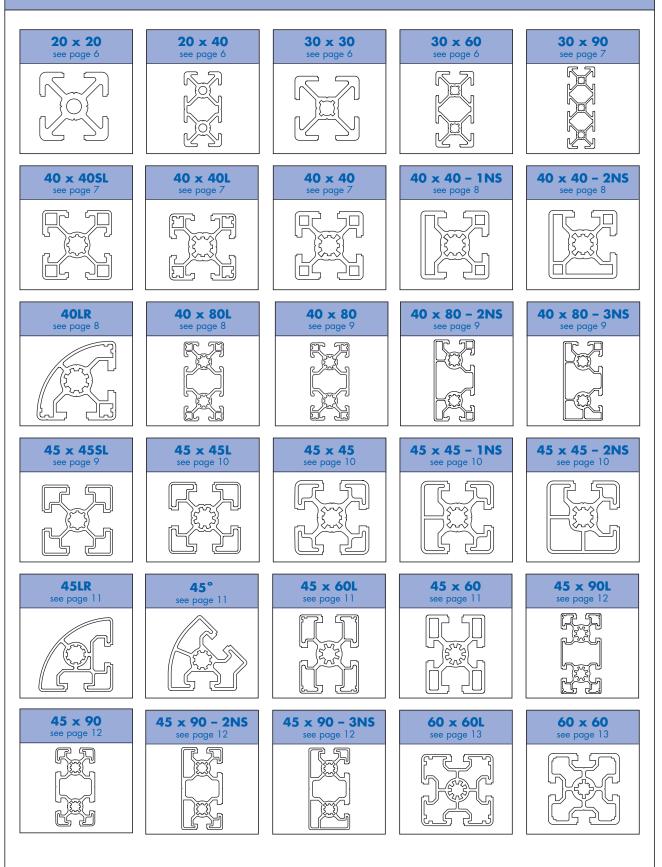
To provide our customers with a fully detailed quotation, Hepco is able to produce full MCS CAD drawings and 3D views to customer's specification and design. Its fully itemised parts list and schedule is also supplied where customers are assembling frameworks themselves.

Component files can be downloaded from Hepco's website **www.HepcoMotion.com**

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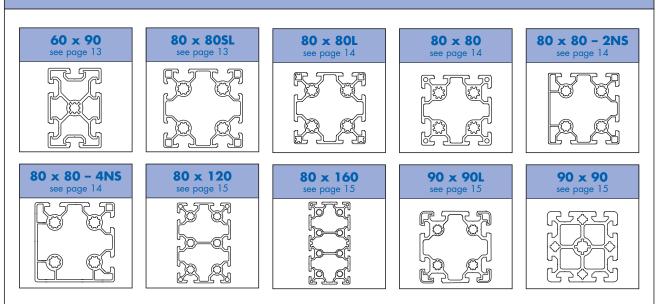
Aluminium Profiles

Structural Sections



Aluminium Profiles

Structural Sections



See specialist section page 41 for other profiles.

These structural aluminium profiles are precision extruded using high quality Al6063-T5 material. They are then clear-coat anodised to a thickness of 10 microns, resulting in an accurate, hardwearing basis for all types of frame construction.

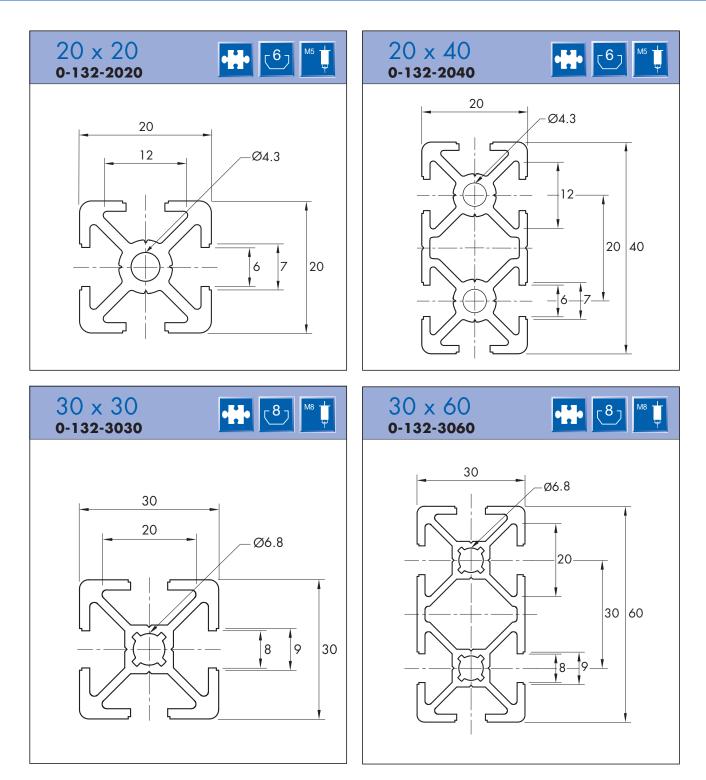
Profiles can also be specially powder coated in a range of colours.

All profiles include T-slots along their length, allowing simple insertion of T-nuts and T-bolts to attach connection brackets or accessories.

Most sizes of structural profile are available as random 5600mm lengths, with the exception of the 20x20, 20x40 and 90x90 sizes 4000mm. A fast cutting, drilling, machining and tapping service is provided by Hepco, which also includes complete frame assembly to customer's drawings. See page 53 for end machining details.

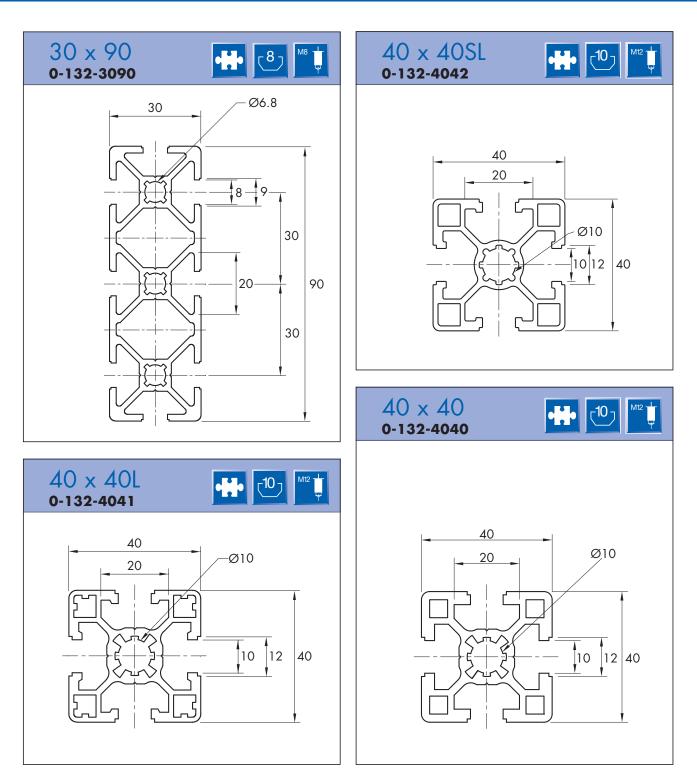
For details of 'Choosing the correct **MCS System profile** for your application' please refer to pages 48 to 49. Complete Technical details may be found on pages 44 to 53.

Aluminium Profiles



Technical Data

	20 x 20	20 x 40	30 x 30	30 x 60
Max. Length	4000mm	4000mm	5600mm	5600mm
Mass	0.43kg/m	0.76kg/m	0.87kg/m	1.53kg/m
Moment of Inertia (cm ⁴)	lxx 0.65	lxx 4.5	lxx 3.2	lxx 20.9
	lyy 0.65	lyy 1.2	lyy 3.2	lyy 5.9
Section Modulus (cm ³)	Wxx 0.65	Wxx 2.2	Wxx 2.1	Wxx 6.9
	Wyy 0.65	Wyy 1.2	Wyy 2.1	Wyy 3.9



Technical Data

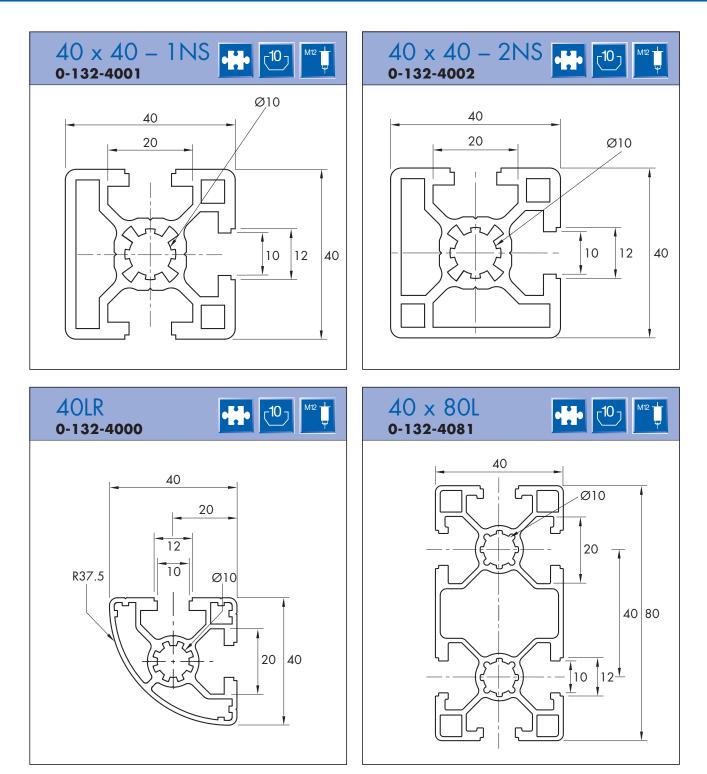
	30 x 90	40 x 40SL	40 x 40L	40 x 40
Max. Length	5600mm	5600mm	5600mm	5600mm
Mass	2.19kg/m	1.3kg/m	1.4kg/m	1.7kg/m
Moment of Inertia (cm ⁴)	lxx 64.1	lxx 7.8	lxx 8.4	lxx 10.2
	lyy 8.5	lyy 7.8	lyy 8.4	lyy 10.2
Section Modulus (cm ³)	Wxx 14.2	Wxx 3.9	Wxx 4.2	Wxx 5.1
	Wyy 5.7	Wyy 3.9	Wyy 4.2	Wyy 5.1

Component files can be downloaded from Hepco's website **www.HepcoMotion.com**

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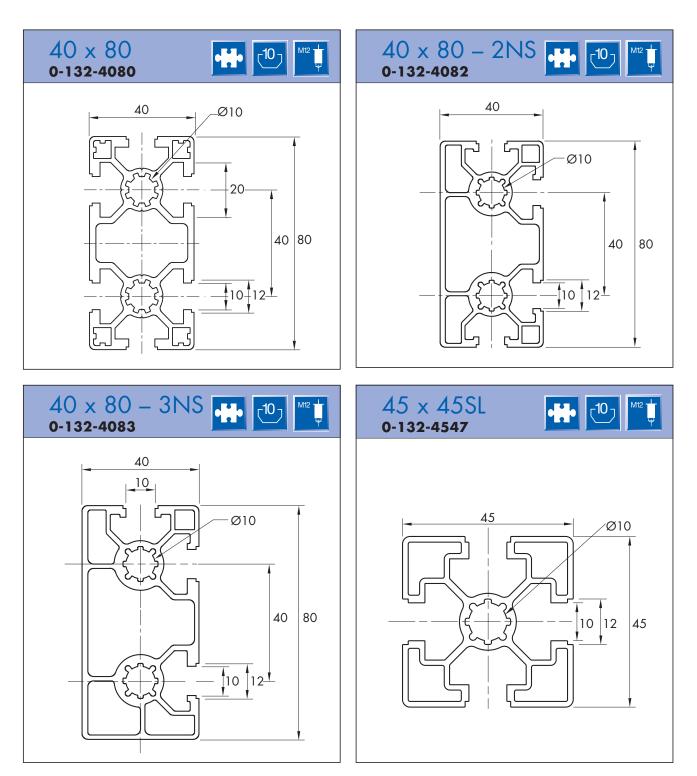
Aluminium Profiles

Aluminium Profiles



	40 x 40 - 1NS	40 x 40 - 2NS	40LR	40 x 80L
Max. Length	5600mm	5600mm	5600mm	5600mm
Mass	1.7kg/m	1.7kg/m	1.2kg/m	2.1kg/m
Moment of Inertia (cm ⁴)	lxx 9.9	lxx 10.3	lxx 6.0	lxx 52.6
	lyy 10.3	lyy 10.3	lyy 6.0	lyy 14.3
Section Modulus (cm ³)	Wxx 4.9	Wxx 5.1	Wxx 2.6	Wxx 13.15
	Wyy 5.15	Wyy 5.1	Wyy 2.6	Wyy 7.15

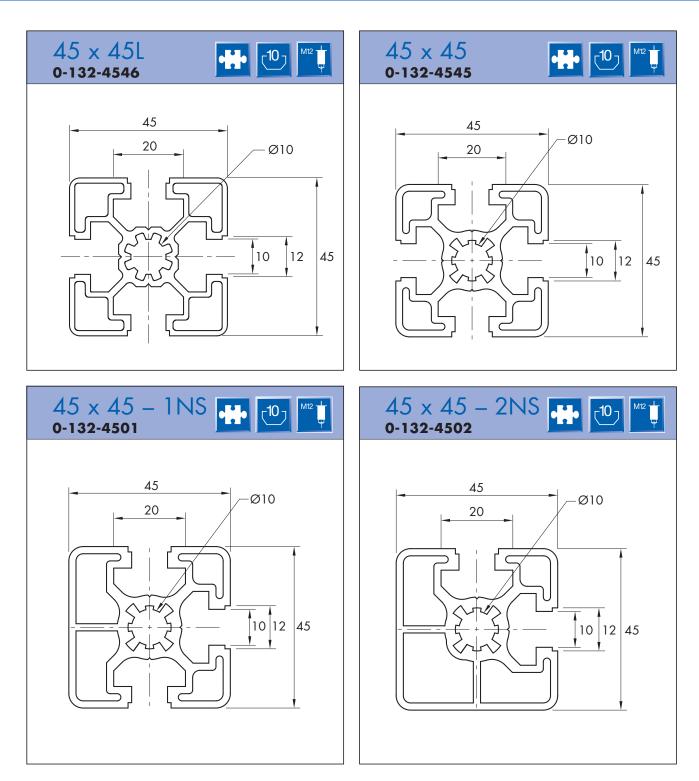
Aluminium Profiles



Technical Data

	40 x 80	40 x 80 - 2NS	40 x 80 - 3NS	45 x 45SL
Max. Length	5600mm	5600mm	5600mm	5600mm
Mass	2.6kg/m	2.35kg/m	2.32kg/m	1.4kg/m
Moment of Inertia (cm ⁴)	lxx 61.4	lxx 55.8	lxx 54.5	lxx 10.1
	lyy 17.0	lyy 15.2	lyy 14.8	lyy 10.1
Section Modulus (cm ³)	Wxx 15.3	Wxx 13.9	Wxx 13.6	Wxx 4.5
	Wyy 8.5	Wyy 7.6	Wyy 7.4	Wyy 4.5

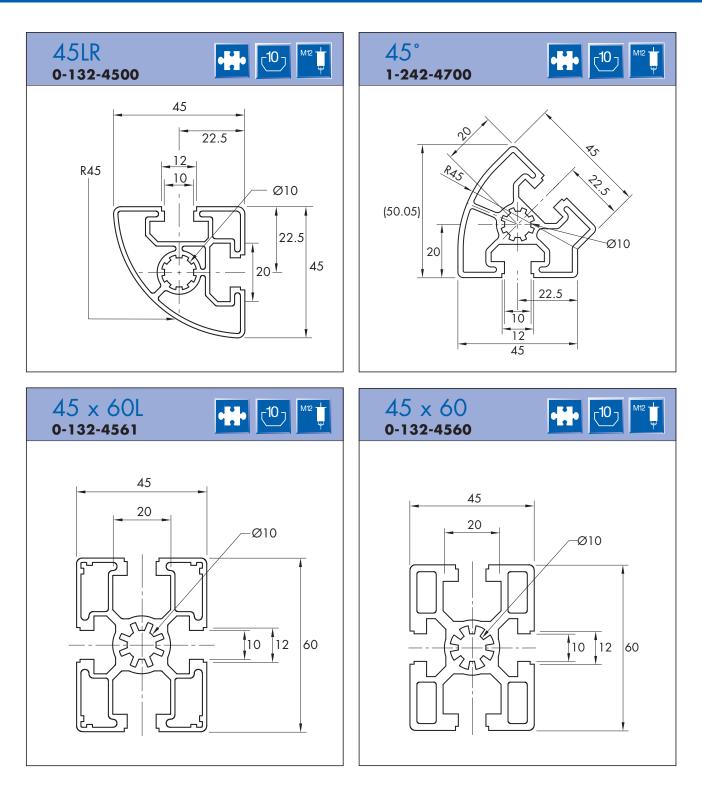
Aluminium Profiles



Technical Data

	45 x 45L	45 x 45	45 x 45 - 1NS	45 x 45 - 2NS
Max. Length	5600mm	5600mm	5600mm	5600mm
Mass	1.5kg/m	1.9kg/m	1.9kg/m	1.8kg/m
Moment of Inertia (cm⁴)	lxx 10.4	lxx 14.0	lxx 13.0	lxx 12.9
	lyy 10.4	lyy 14.0	lyy 13.5	lyy 12.9
Section Modulus (cm ³)	Wxx 4.6	Wxx 6.2	Wxx 5.8	Wxx 5.7
	Wyy 4.6	Wyy 6.2	Wyy 6.0	Wyy 5.7

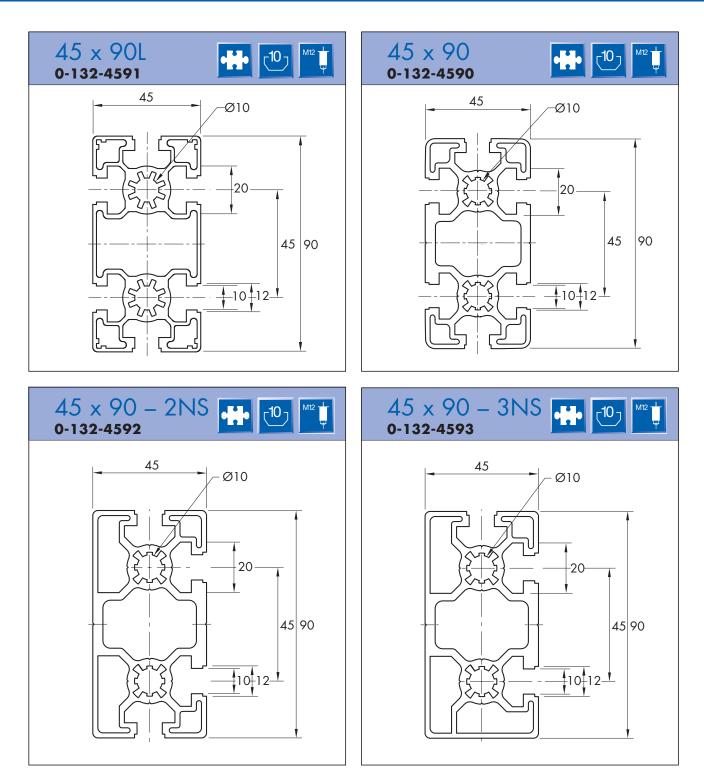
Aluminium Profiles



Technical Data

	45LR	45 °	45 x 60L	45 x 60
Max. Length	5600mm	5600mm	5600mm	5600mm
Mass	1.2kg/m	1.5kg/m	2.1kg/m	2.8kg/m
Moment of Inertia (cm4)	lxx 7.2	lxx 9.6	lxx 24.3	lxx 35.0
	Іуу 7.2	lyy 10.4	lyy 15.3	lyy 22.0
Section Modulus (cm ³)	Wxx 2.8	Wxx 4.1	Wxx 8.1	Wxx 11.6
	Wyy 2.8	Wyy 4.7	Wyy 6.8	Wyy 9.8

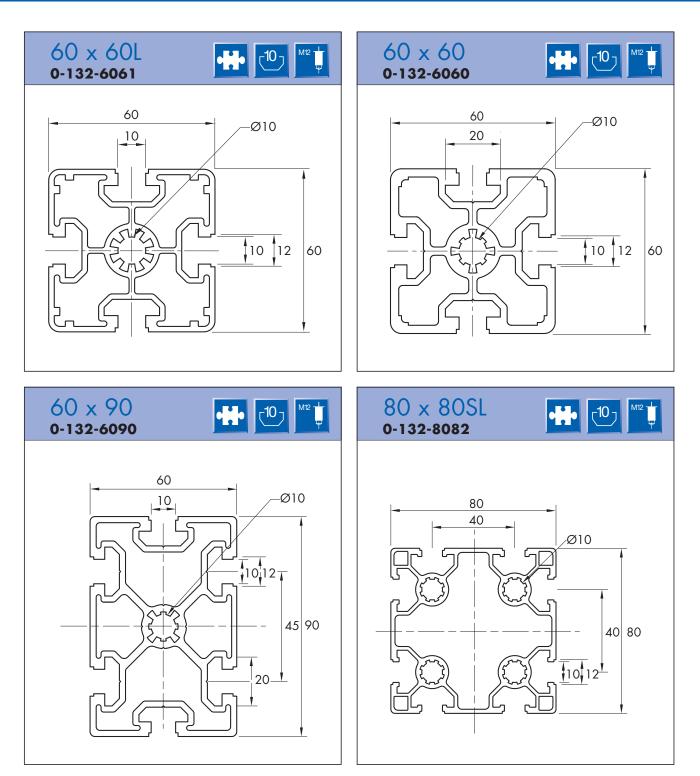
Aluminium Profiles



Technical Data

	45 x 90L	45 x 90	45 x 90 - 2NS	45 x 90 - 3NS
Max. Length	5600mm	5600mm	5600mm	5600mm
Mass	3.13kg/m	3.6kg/m	3.4kg/m	3.4kg/m
Moment of Inertia (cm⁴)	lxx 93.6	lxx 100.9	lxx 96.3	lxx 94.4
	lyy 22.0	lyy 29.4	lyy 27.6	lyy 27.3
Section Modulus (cm ³)	Wxx 20.8	Wxx 22.4	Wxx 21.4	Wxx 21.0
	Wyy 9.8	Wyy 13.0	Wyy 12.3	Wyy 12.1

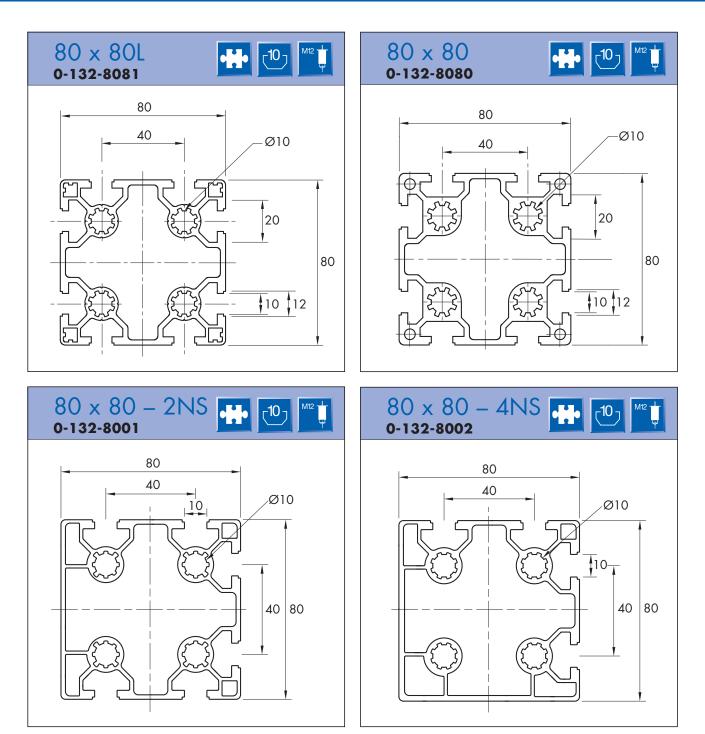
Aluminium Profiles



Technical Data

	60 x 60L	60 x 60	60 x 90	80 x 80SL
Max. Length	5600mm	5600mm	5600mm	5600mm
Mass	2.9kg/m	3.6kg/m	4.4kg/m	3.6kg/m
Moment of Inertia (cm4)	lxx 37.0	lxx 47	lxx 129.2	lxx 97.6
	lyy 37.0	lyy 47	lyy 59.8	lyy 97.6
Section Modulus (cm ³)	Wxx 12.3	Wxx 15.7	Wxx 28.7	Wxx 24.4
	Wyy 12.3	Wyy 15.7	Wyy 19.9	Wyy 24.4

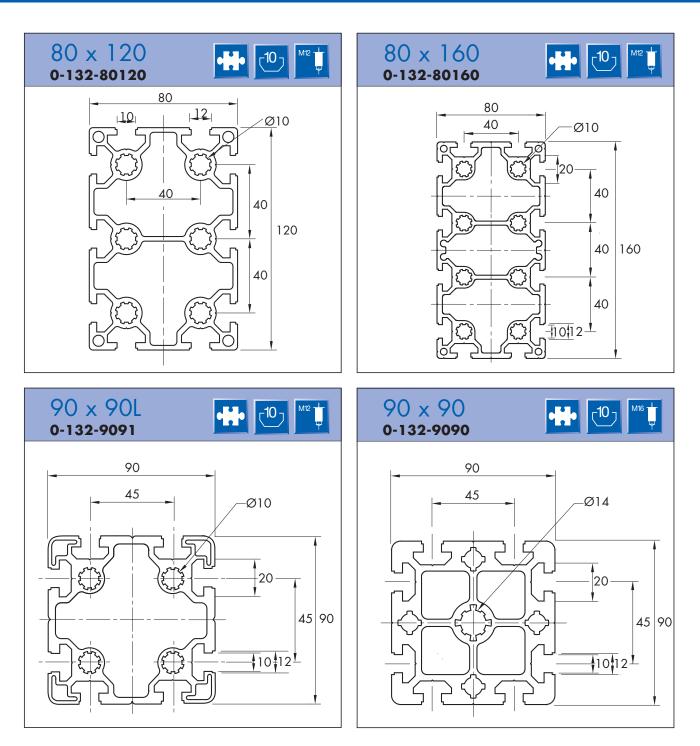
Aluminium Profiles



Technical Data

	80 x 80L	80 x 80	80 x 80 - 2NS	80 x 80 - 4NS
Max. Length	5600mm	5600mm	5600mm	5600mm
Mass	4.1kg/m	4.7kg/m	3.7kg/m	3.7kg/m
Moment of Inertia (cm⁴)	lxx 110.7	lxx 124.4	lxx 102	lxx 104
	lyy 110.7	lyy 124.4	lyy 100	lyy 104
Section Modulus (cm ³)	Wxx 27.7	Wxx 31.1	Wxx 25.5	Wxx 26
	Wyy 27.7	Wyy 31.1	Wyy 25	Wyy 26

Aluminium Profiles



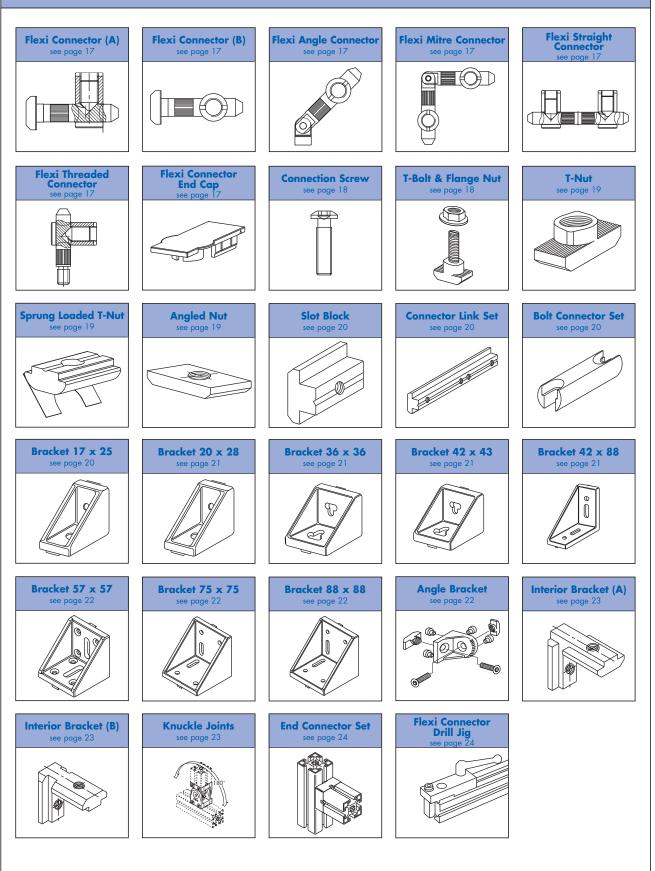
Technical Data

	80 x 120	80 x 160	90 x 90L	90 x 90
Max. Length	5600mm	5600mm	5600mm	4000mm
Mass	6.4kg/m	9.1kg/m	5.6kg/m	9.3kg/m
Moment of Inertia (cm⁴)	lxx 362	lxx 893	lxx 193	lxx 285
	lyy 176	lyy 262	lyy 193	lyy 285
Section Modulus (cm ³)	Wxx 60	Wxx 111	Wxx 42.9	Wxx 63
	Wyy 44	Wyy 65.5	Wyy 42.9	Wyy 63

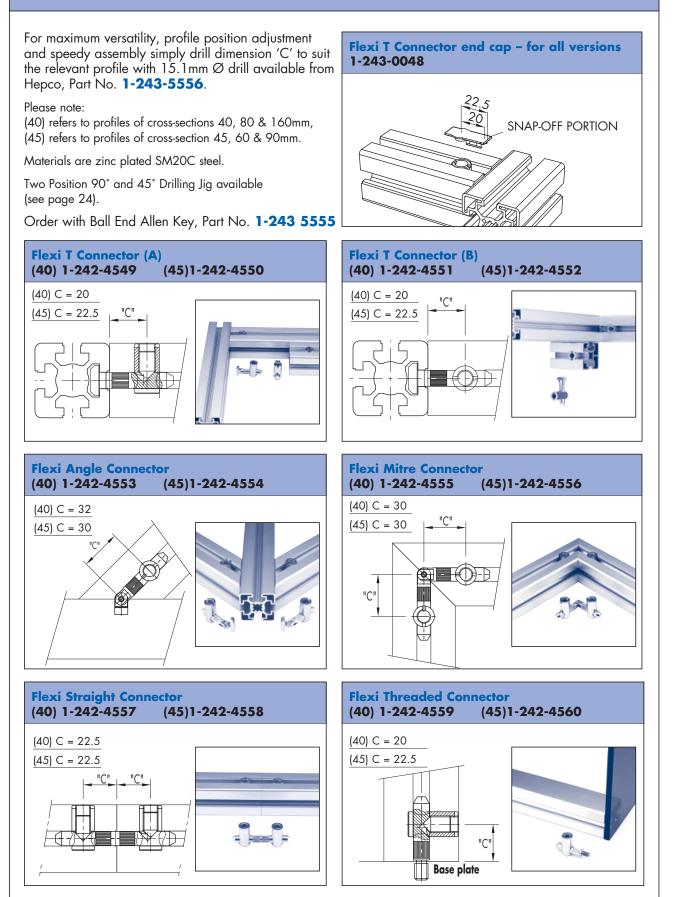
Component files can be downloaded from Hepco's website **www.HepcoMotion.com**

For key reference see page 1 15

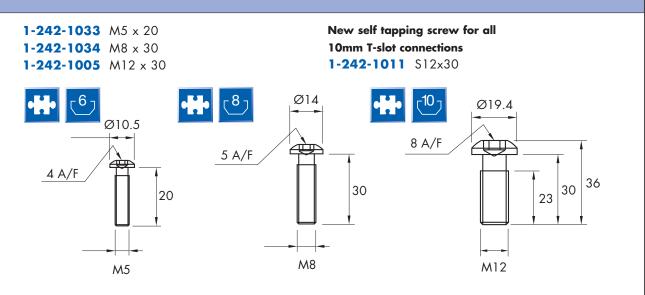
Profile Connections

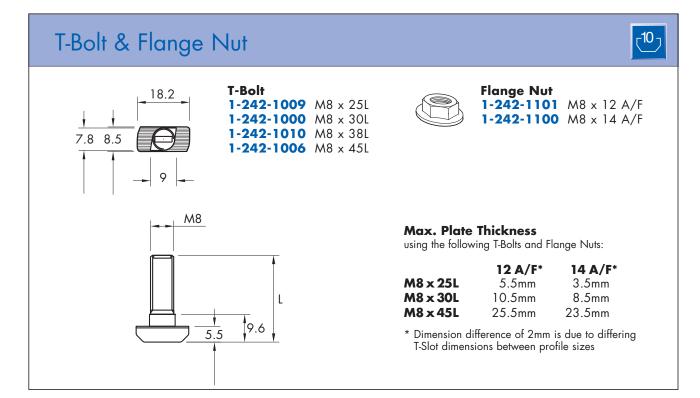


Flexi Connectors



Connection Screw

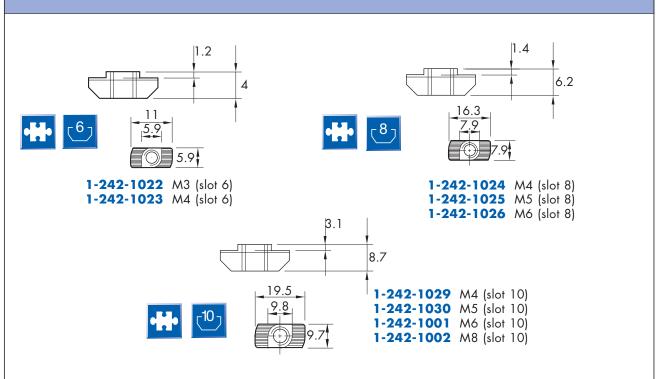


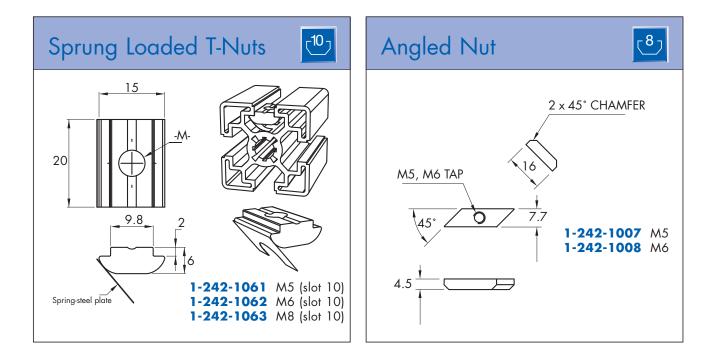


Technical Data

	Connection Screw	T-Bolt & Flange Nut
Material	Steel EN3B	Steel EN3B
Finish	Zinc Plated	Zinc Plated
Mass	1-242-1033 0.01kg/ea	1-242-1009 0.01kg/ea
	1-242-1034 0.01kg/ea	1-242-1000 0.01kg/ea
	1-242-1005 0.01kg/ea	1-242-1010 0.02kg/ea
	1-242-1011 0.02kg/ea	1-242-1006 0.02kg/ea

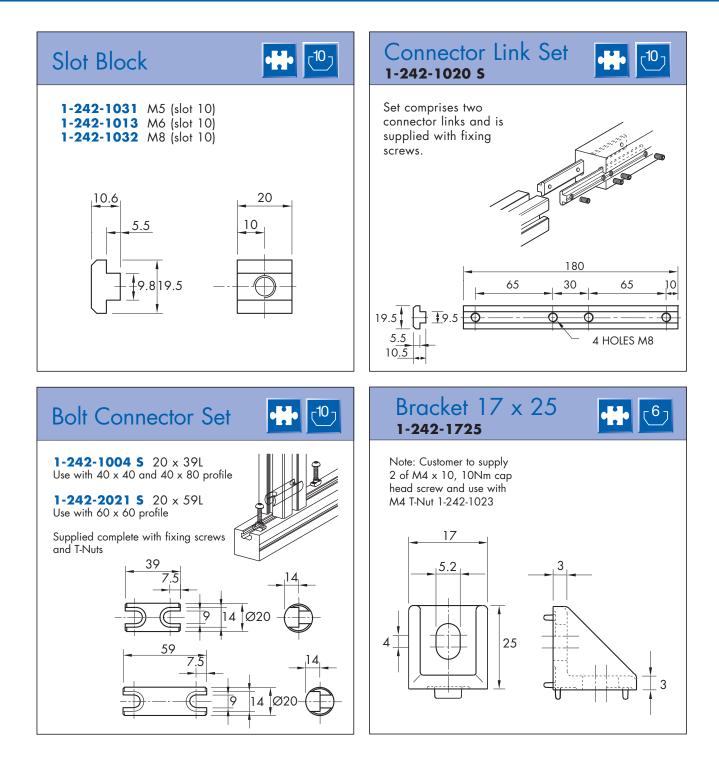




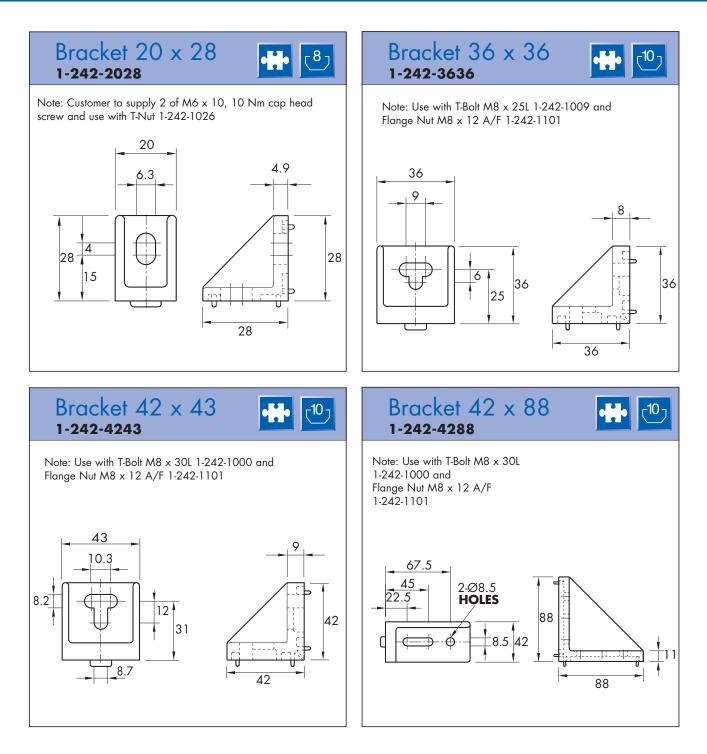


Technical Data

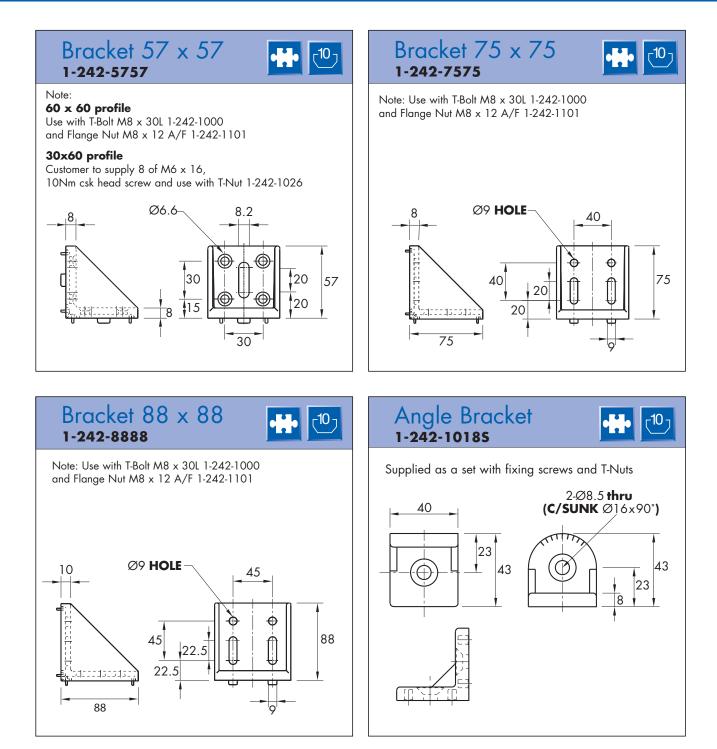
	T-Nut	8 T-Nut	T-Nut	Sprung Loaded T-Nuts	Angled Nut
Material	Steel EN3B	Steel EN3B	Steel EN3B	Steel EN3B	SteelEN3B
Finish	Zinc Plated	Zinc Plated	Zinc Plated	Zinc Plated	Zinc Plated
Mass	0.002kg/ea	0.004kg/ea	0.007kg/ea	0.013kg/ea	0.002kg/ea



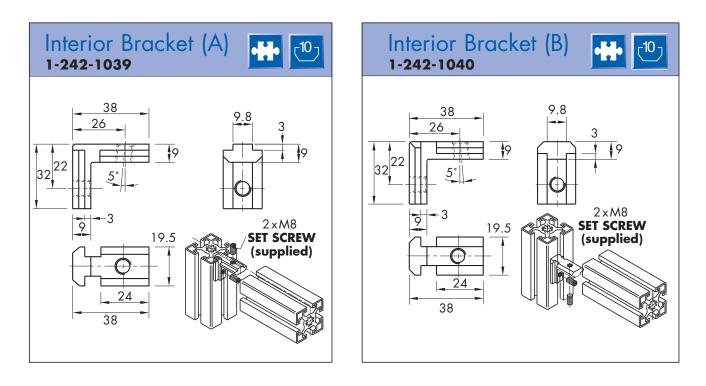
	Slot Block	Connector Link Set	Bolt Connector Set	Bracket 17x25
Material	Steel EN3B	Steel EN3B	Steel EN3B	Aluminium
Finish	Zinc Plated	Zinc Plated	Zinc Plated	None
Mass	0.02kg/ea	0.38kg/ea	39L 0.05kg/ea	0.02kg/ea
			59L 0.10kg/ea	



Bracket	20 x 28	36 x 36	42 x 43	42 x 88
Material	Aluminium	Aluminium	Aluminium	Aluminium
Finish	None	None	None	None
Mass	0.02kg/ea	0.04kg/ea	0.06kg/ea	0.15kg/ea



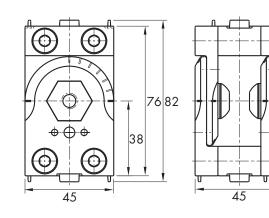
Bracket	57 x 57	75 x 75	88 x 88	Angle Bracket
Material	Aluminium	Aluminium	Aluminium	Zinc Die-cast
Finish	None	None	None	None
Mass	0.12kg/ea	0.25kg/ea	0.30kg/ea	0.10kg/ea



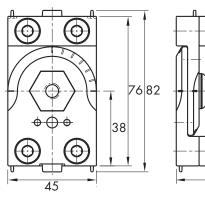
Knuckle Joints

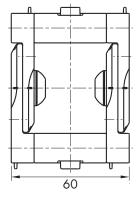
Supplied as a set with all fixings required.

1-242-4548 For use with 45 x 45



1-242-4570 For use with 45 x 60



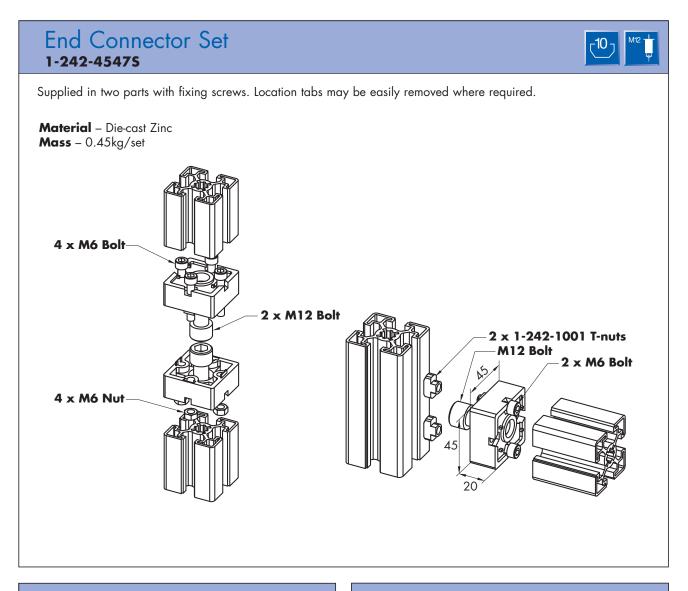


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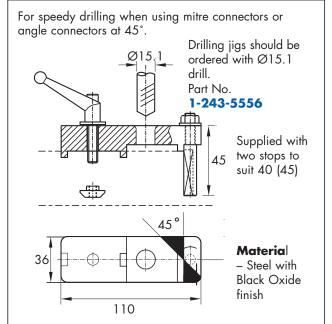
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M12

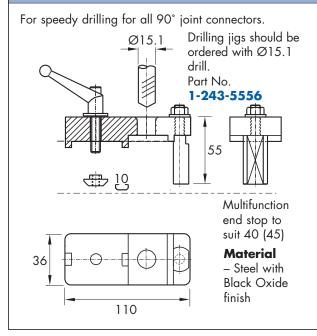
Bracket	Interior (B)	Interior (A)	Knuckle Joints
Material	Zinc Die-cast	Zinc Die-cast	Zinc Die-cast
Finish	None	None	None
Mass	0.06kg/ea	0.06kg/ea	1-242-4548 0.54kg/set
			1-242-4570 0.62kg/set

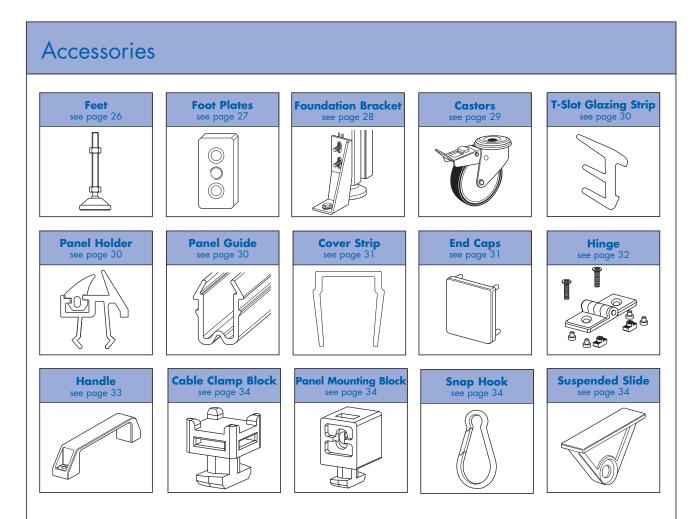


Flexi Connector Drilling Jig 45° ends 1-242-4561



Flexi Connector Drilling Jig 90° ends 1-242-4562





A extensive range of accessories for the **MCS System** provides professional frame finishing, allows sliding and hinged door hanging, suspension of work tools, adjustable feet for non-level floors, and location of glazing panels.

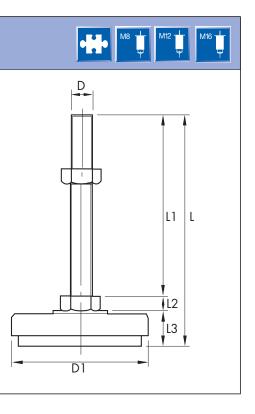
These components are precision formed using PVC, ABS plastic, or coated steel for a hard-wearing and aesthetically-pleasing result.

Hepco also offers a range of hard-wearing Castors to suit the **MCS Machine Construction System** – details of these are on page 29. Castors for more specialist uses can be easily sourced by Hepco – ask us for details if any of the standard range is not suitable for a particular application.

• Foot Adjustable height with 15° of movement Μ allows for uneven floor surfaces. Profile end requires tapping. 15° 15° L Part No. **Tap Size** Diameter Length Mass 1-243-0030 M8 40 60 0.04kg/ea. 1-243-0050 M12 150 0.17kg/ea. 60 1-243-0051 M12 100 150 0.23kg/ea. ø 1-243-0040 M16 60 150 0.28kg/ea. M16 1-243-0041 100 150 0.33kg/ea.

Steel Foot – cushioning type

Part No.	D	D1	L	ш	L2	L3	Mass
1-243-0020	8	40	63	40	6	17	0.85kg/ea.
1-243-0021	12	48	152	125	8	19	0.15kg/ea.
1-243-0022	16	61	155	125	10	20	0.2kg/ea.

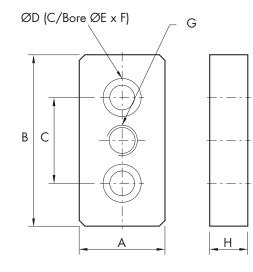


	Foot	Steel Foot
Material	Plastic and Steel	Steel and Rubber
Finish	Steel/Zinc Plated	Plated

Foot Plates

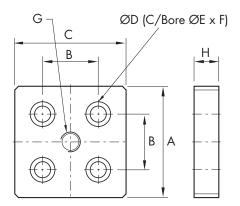


Allows assembly of Foot on rectangular profiles, which have no central fixing hole.



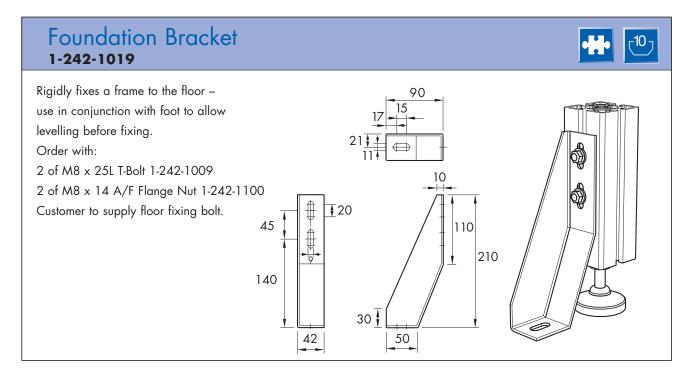
Part No.	Recommended for	Α	В	С	D	E	F	G	н	Mass kg
1-243-0114	20x40	20	40	20	5.5	9.5	5.4	M8	8	0.05
1-243-0115	30x60	30	60	30	9	14	8.6	M8	12	0.17
1-243-0116	40x80	40	80	40	13	20	13	M16	20	0.5
1-243-0112	45x90	45	90	45	13	20	13	M16	20	0.5

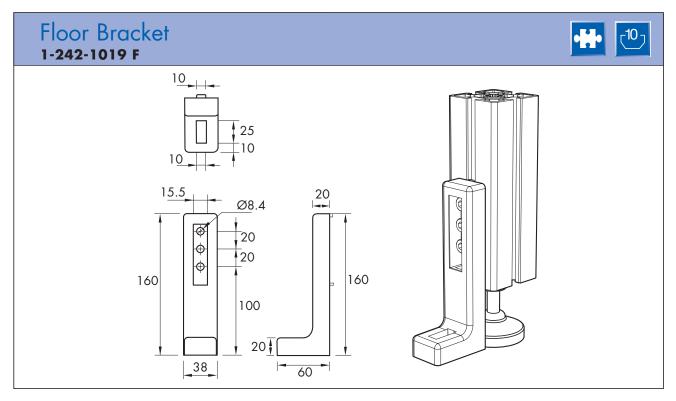
Allows assembly of Foot on square profiles, which have no central fixing hole.



1-243-0117 80×80 80 40 80 14 20 13 M16 20 1.0	Part No.	Recommended for	A	В	С	D	E	F	G	н	Mass kg
	1-243-0117	80x80	80	40	80	14	20	13	M16	20	1.0
1-243-0113 90x90L 90 45 90 13 20 13 M16 20 1.0	1-243-0113	90x90L	90	45	90	13	20	13	M16	20	1.0

	Rectangular Foot Profile	Square Foot Profile
Material	Steel EN32	Steel EN32
Finish	Black Oxide	Black Oxide

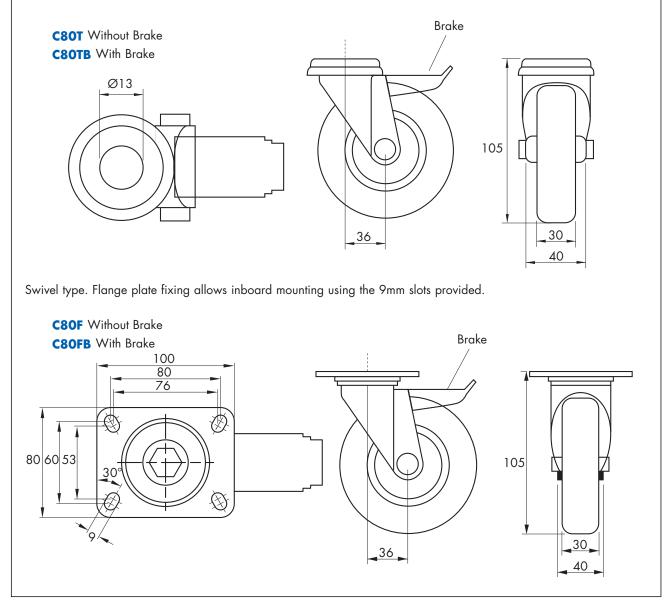




	Foundation Bracket	Floor Bracket	
Material	Steel EN32	Zinc Die-cast	
Finish	Black Oxide	Black Powder Coated	
Mass	0.44kg/ea	0.46kg/ea	

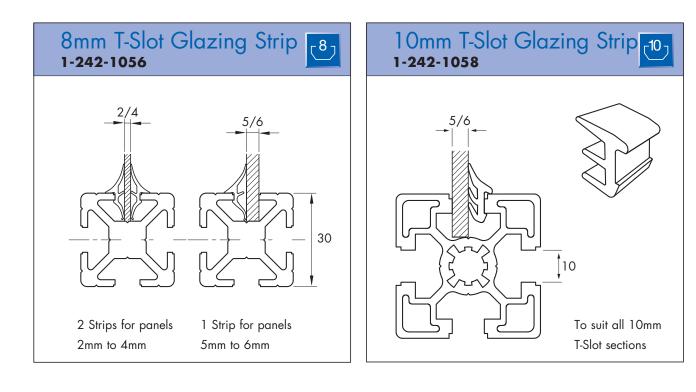
Castors

Swivel type. Through hole fixing makes these castors suitable for end fixing into profiles from 40x40L to 90x90L (using M12 cap head fixing screw). Other castors for profiles outside this range available on request, or see the flange fixing type below.



Technical Data

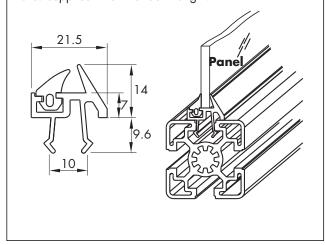
Castors	C80T/TB	C80F/FB
Body	Zinc Plated Steel	Zinc Plated Steel
Wheel	Nylon	Nylon
Tyre	Polyurethane	Polyurethane
Wheel Diameter	80mm	80mm
Load Capacity	90kg/ea	90kg/ea
Mass	0.65kg/ea	0.65kg/ea



[¹⁰]

Panel Holder 1-242-1045

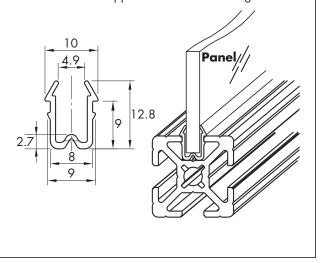
For use in profiles with slot size 10. The two part holder can be inserted into a pre-assembled frame and allows 5mm panels to be inserted/removed in situ. Supplied in 3m random length.



Panel Guide 1-242-1049

For use in profiles with slot size 8. Requires panel and panel guide to be fitted during assembly of the structural frame. Supplied in 3m random length.

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Technical Data

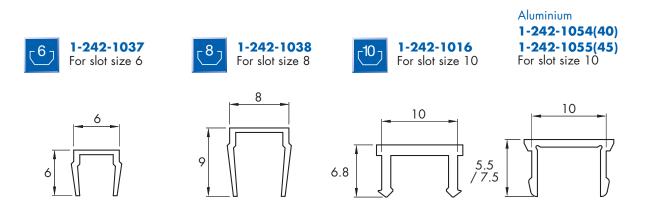
	T-Slot Glazing Strip	Panel Holder	Panel Guide
Material	Rubber	PVC/Rubber	ABS Plastic
Finish	Black	Black	Black
Mass	-	-	-
Max. Length	Cut to length	3000mm	3000mm

Component files can be downloaded from Hepco's website **www.HepcoMotion.com**

For key reference see page 1

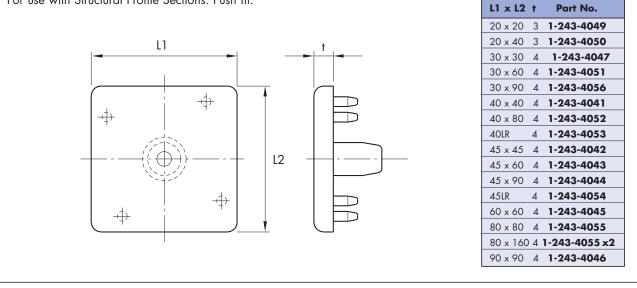
Cover Strip

Improves the appearance of the finished frames, protects T-slots from contamination and secures electrical cable. Push fit. Supplied in 3m random lengths. New Aluminium strips for 10mm slots.



End Caps

For use with Structural Profile Sections. Push fit.



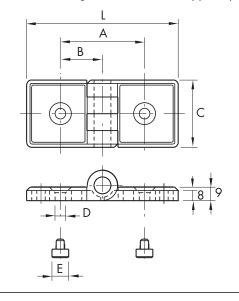
Technical Data

	Cover Strip	End Caps
Material	Aluminium or PVC	ABS Plastic
Finish	Anodized/Black (other colours available)	Black
Max. Length	3000mm	_
Mass	0.04kg/m	_
Mass	Aluminium 0.06kg/m	_

Hinge (Plastic)



Supplied individually or as a set complete with all relevant T-Nuts, screws and fixings. To order the set append part no. with an 'S'.



1-243-4048 (S) To hinge size 30 profiles (fixed type)

1-243-4545 (S) To hinge size 45 profiles (fixed type)

1-243-4060 (S)

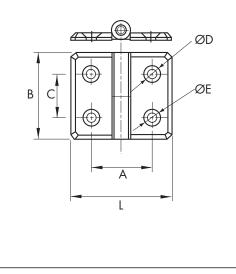
To hinge size 30 profile to a size 45 profile (fixed type)

(S): Complete with fixings

Part No.	L	Α	В	С	øD	øE
1-243-4048	61	35	17.5	40	6.2	8
1-243-4545	90	50	25	40	6.2	10
1-243-4560	74.5	42.5	17.5/25	40	6.2	8/10

Hinge (Die-cast)

All hinges supplied as a set complete with standard fixings.



1-243-6074 (S) R/H 40x40 **1-243-6073 (S)** L/H 40x40 To hinge size 40 (lift off type see example page 37)

1-243-7006 (S) R/H 45x45 **1-243-7005 (S)** L/H 45x45 To hinge size 45 (lift off type see example page 37)

Part No.	L	Α	В	С	øD	øE
1-243-6073(S)	70	42	60	30	12	6.2
1-243-6074(S)	70	42	60	30	12	6.2
1-243-7005(S)	80	47	60	30	12	6.2
1-243-7006(S)	80	47	60	30	12	6.2
1-243-6070(S)	70	42	60	30	12	6.2
1-243-8085(5)	80	47	60	30	12	6.2

Technical Data

	Hinge	Hinge 40	Hinge 45	Hinge Lift Off
Material	Nylon	Zinc Die-cast	Zinc Die-cast	Zinc Die-cast
Finish	Black	Chrome Plated	Chrome Plated	Chrome Plated
Mass	0.08kg/ea	0.13kg/ea	0.13kg/ea	0.13kg/ea

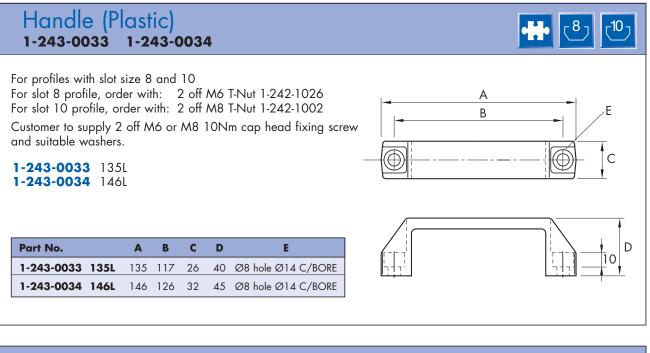


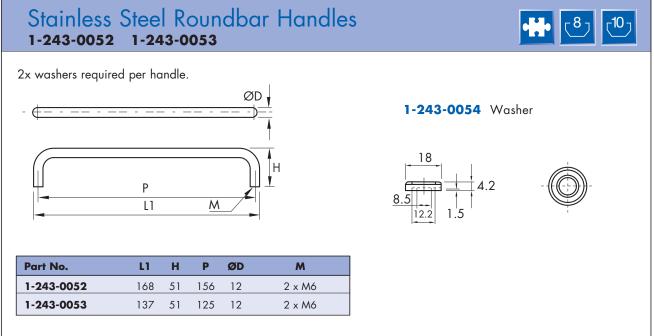
1-243-6070 (S)

To hinge size 40 (fixed type)

-10-

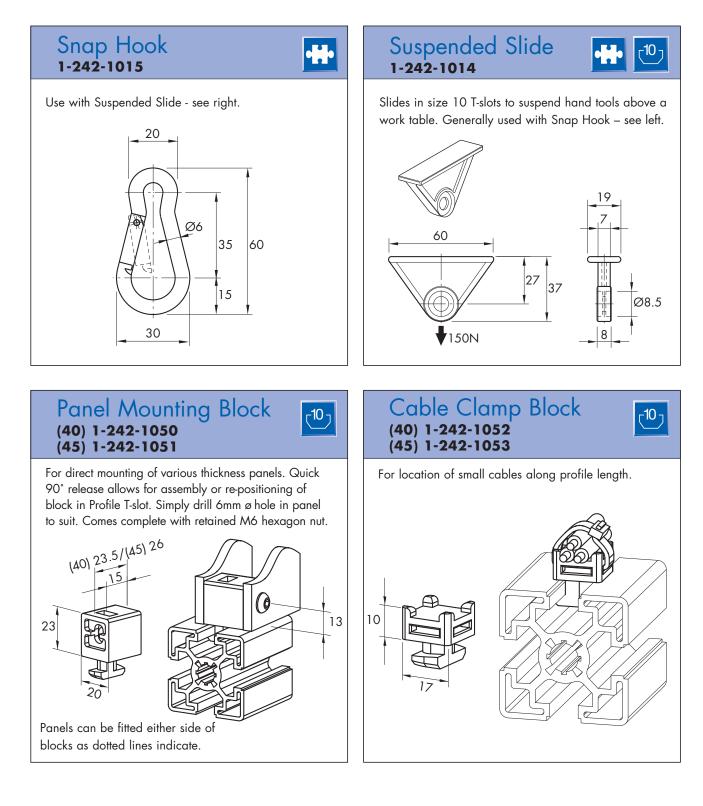
1-243-8085 (5) To hinge size 45 (fixed type)





Technical Data

	Handle	Stainless Steel Roundbar Handles
Material	ABS Plastic	Stainless Steel
Finish	Black	-
Mass	0.04kg/ea	



Technical Data

	Snap Hook	Suspended Slide	Panel Mounting Block	Cable Clamp Block
Material	en3b	Nylon	Nylon 66 G13	ABS Plastic
Finish	Zinc Plated	Black	Black	Black
Mass	0.03kg/ea	0.01kg/ea	-	-



The **Hepco**Motion **MFS Machine Fencing System** compatible with our **MCS** aluminium profile product range enables cost effective barriers to be constructed around machine installations such as Gantries, Pick and Place equipment and floor mounted robot systems.

Conforming to current Industry standards this maintenance free system is easy to construct and offers a lower cost alternative to similar systems.

HepcoMotion's **MFS system** can be supplied as pre-assembled panels to the customer's drawings or as individual components for the customer to machine and assemble in their own workshop. Delivery is fast with all major components carried ex-stock.

We would be pleased to discuss your future requirements for standard **MFS** components as well as specific non standard items such as locks, switches and specialist panel requirements.



End cap

End caps to close off the slot profiles and vertical profile sections. (2)39



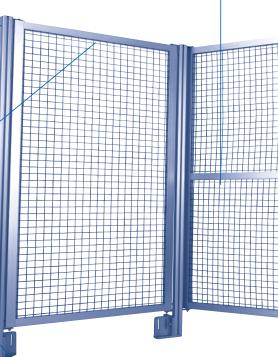
Two-slot profile

Provides a mid section support either vertical or horizontal to break up large single frames and ensure maximum rigidity to the assembled mesh/panel. []38

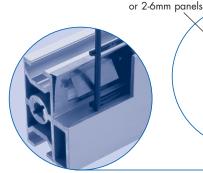


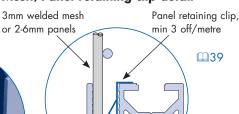
One-slot profile

A light but very rigid section used for the main frame surround. A deep 8mm wide slot allows an extensive range of mesh and panel options to be fitted in combination with the **Panel retaining clip**. An 8mm T-slot allows further attachment of additional accessories should the need arise. **\$\box\$38\$**



Mesh/Panel retaining clip detail







Panel fixing kit

A complete kit of parts for securing the fencing panel to its vertical post support. The lower bracket with its domed location stud is fully adjustable to allow for small misalignments between the vertical posts. Two bolts at the top are all that is necessary to firmly secure the fencing panel in place no matter what size of panel is being used. The swivel action of the panel fixing kit allows panels to be laid out in at any angle not just 90 degrees. []]39

Panel retaining clip

36

This unique fixing clip developed by Hepco will ensure that almost all types of wire mesh sheeting or polycarbonate/steel panels which are fitted within the 8mm slot profiles are securely retained and will not rattle or vibrate. Designed for 2-6mm sheet panels and all 3mm wire mesh, the sprung feet of the clip ensure universal fitting into the profile slot and the location teeth ensure the clips cannot become dislodged. (8mm panels and 4mm wire mesh do not normally require the additional use of these clips.) The number of clips needed is dependant on the panel material being used.



Vertical post

Utilising the MCS 45 Light and 45/90 Light sections the vertical post is secured into the **Foundation** Block with standard T-Bolts and Nuts. The 45/90 Light provides additional support and rigidity where long unsupported runs are necessary, corners, returns and around door frames. The 10mm T-slot allows the panel mounting kit, hinges etc. to be speedily assembled using standard or sprung loaded T-nuts. 💷 10/12



Sliding doors

A range of sliding door movements can be incorporated into the Machine Fencing System with or without a lower support profile. This is especially useful where clear access is required through the enclosure for say forklift trucks etc. 🛄40



Panel options

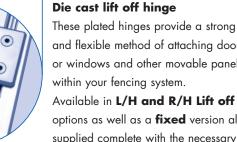
HepcoMotion's Machine Fencing System has been developed to allow designers to incorporate an extensive range of standard wire mesh and sheet panel options for almost any industrial situation. Panels up to 8mm thick can be fitted directly into the slot profiles. Special panels can be supplied to customers requirements.

Wire mesh

Wire mesh in Ø3mm standard welded either selfcoloured or black powder coated 25mm sq, 40mm sq, 50mm sq and 75 x 13 letterbox. (Non-standard 4mm, woven and special painting is available on request.)

Polycarbonate panels

5 and 6mm in clear and coloured versions, including dense foam sheet which is ideal for fencing structures where through visibility is not a requirement.



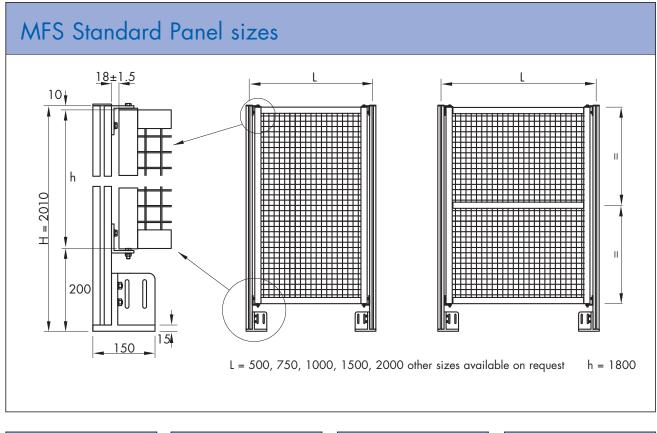
These plated hinges provide a strong and flexible method of attaching doors or windows and other movable panels

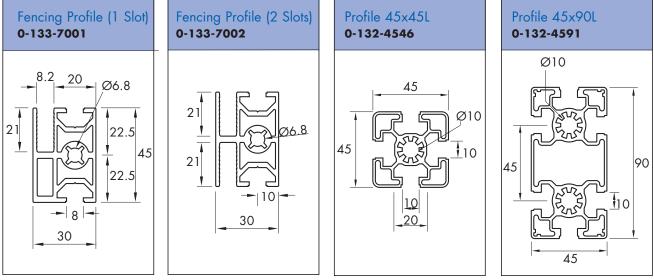
options as well as a **fixed** version all supplied complete with the necessary fixings to our standard vertical posts. **3**2



Foundation Block Kit

The foundation block will accept the 45L and 45/90L Vertical posts and is universally handed for all mounting requirements. Supplied complete with necessary T-Bolts and Nuts. 39

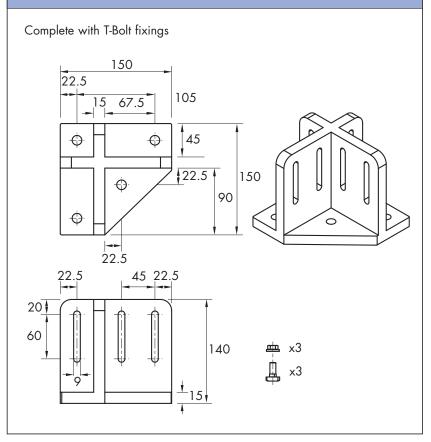


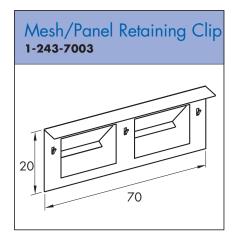


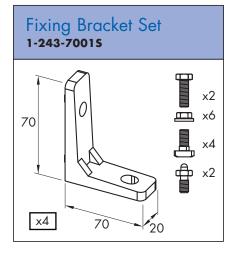
Technical Data

	Fencing Profile (1slot)	Fencing Profile (2 slots)	Profile 45x45L	Profile 45x90L
Max. Length	5600mm	5600mm	5600mm	5600mm
Mass	1.35kg/m	1.3kg/m	1.5g/m	3.15kg/m

Foundation Block Set 1-242-7700 s







Sponge Retaining Strip 1-242-2510 (Retaining mesh in 45 profiles 10mm T-slot)

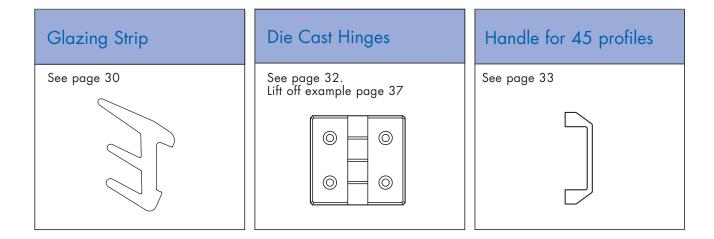
End Caps
Slot profile 1-243-7002 45x45 profile 1-243-4042 45x90 profile 1-243-4044
30 45
4500 4500 90

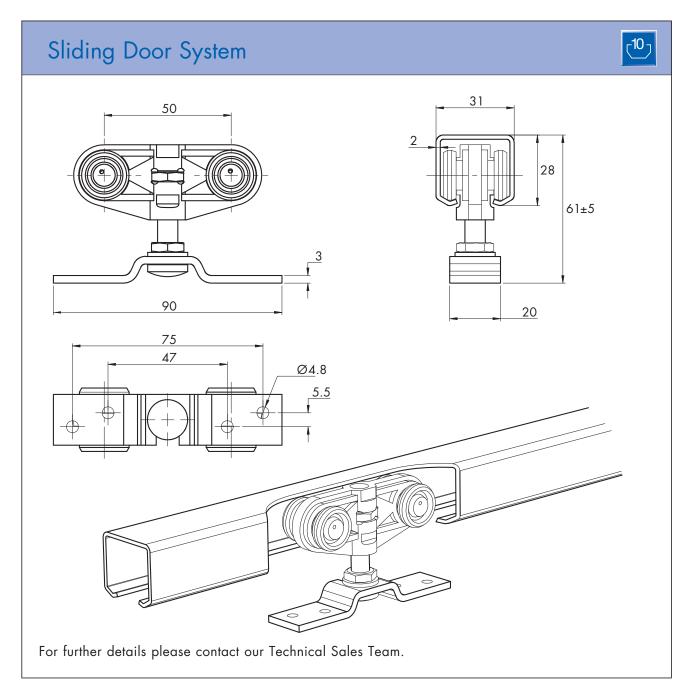
Connection Screws

Connection screw for slot profiles 1-242-1034 (M8) Connection screw for 45 & 90 profiles 1-242-1005 (M12)

Technical Data

	Foundation Block Set	Fixing Bracket Set
Material	Aluminium	Aluminium
Finish	None	None
Mass	1.9kg	0.3kg/m

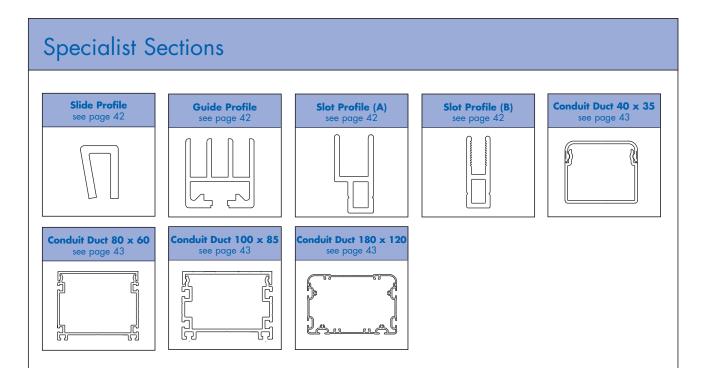




40

Specialist Sections

Aluminium Profiles



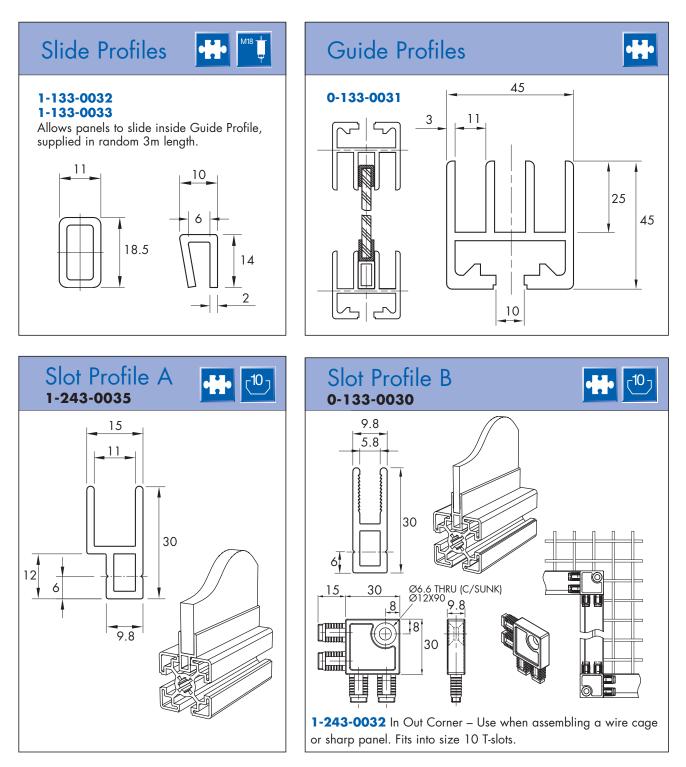
These profiles each have a specialised purpose. They expand and enhance the application of the structural profile sections detailed earlier, and can easily be combined with the structural sections shown previously within this catalogue.

Systems requiring wood, glass or acrylic panelling together with tray and storage bin holding will all benefit from the use of these sections. Additionally, the Conduit Duct Sections are useful to tidily route electrical and pneumatic services. The sliding door system can be customised to individual requirements – please contact our Technical Sales Team for further information.

All specialist profiles are extruded from Al6063-T5 aluminium and clear-coat anodised for a high level of protection. Like the structural sections detailed previously, most of these profiles are available in 5600mm lengths - see the individual profile section for details.

Specialist Sections

Aluminium Profiles



Technical Data

	Guide Profile	Slot Profile A	Slide Profiles	Slot Profile B	In Out Corner
Material	Aluminium	Aluminium	PVC	Aluminium	PVC
Finish	Clear Anodized	Clear Anodized	_	Clear Anodized	-
Max. Length	5600mm	4000mm	3000mm	4000mm	-
Mass	1.9kg/m	0.24kg/m	0.1kg/m	0.37kg/m	-

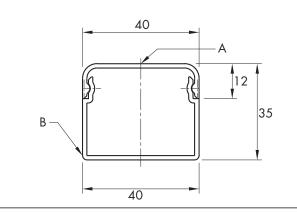
Specialist Sections

Aluminium Profiles

Conduit Duct 40 x 35

A 0-133-0048 B 0-133-0049

Supplied as a 2 part set. Order both Part No.s to create one complete Conduit Duct.

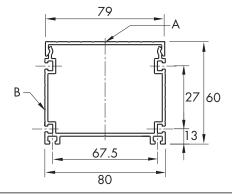


Conduit Duct 80 x 60

A 0-133-8513 B 0-133-8514

Supplied as a 2 part set. Order both Part No.s to create one complete Conduit Duct.

Slots in conduit take a standard M4 nut.

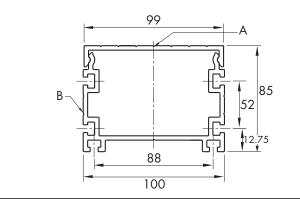


Conduit Duct

A 0-133-8510

B 0-133-8511

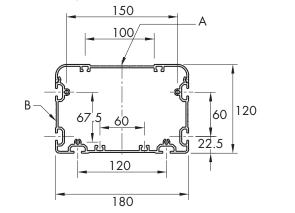
Supplied as a 2 part set. Order both Part No.s to create one complete Conduit Duct. Slots in conduit take a standard M5 nut.



Conduit Duct

A 0-133-0046 B 0-133-0047

Supplied as a 2 part set. Order both Part No.s to create one complete Conduit Duct.



Technical Data

Conduit Duct	40 x 35	80 x 60	100 x 85	180 x 120
Material	AI6063-T5	AI6063-T5	AI6063-T5	AI6063-T5
Finish	Clear Anodized	Clear Anodized	Clear Anodized	Clear Anodized
Max. Length	4000mm	5600mm	5600mm	5600mm
Mass	0.59kg/m	2.4kg/m	2.9kg/m	5.8kg/m

Technical Details



This section of the catalogue contains selection information for both Structural Aluminium Profiles and Profile Connections, plus details of end machining where required.

An important factor in the selection of a structural aluminium profile is the amount of deflection which will be acceptable. This deflection gives rise to a bending stress, which must be less than the maximum allowable figure of 200N/mm². A bending stress greater than this figure is likely to cause the profile to fail. In calculating the correct profile, this maximum bending stress figure should be reduced by a safety factor according to the application characteristics.

Deflection may be calculated either by using Moment of Inertia* and Section Modulus** figures in the formulas relevant to an application, or graphically by following a number of steps using the graph and nomograms provided. It should be noted, however, that the graphical method will give a more approximate deflection figure. As shown in the Profile Connections section of this catalogue, there are a number of methods available for connecting **MCS** profiles and components together. Each of these methods has a different load-bearing ability and various advantages and disadvantages in terms of ease, speed and flexibility of use. The table on page 52 will aid the selection of connection methods based on the criteria most relevant to your application.

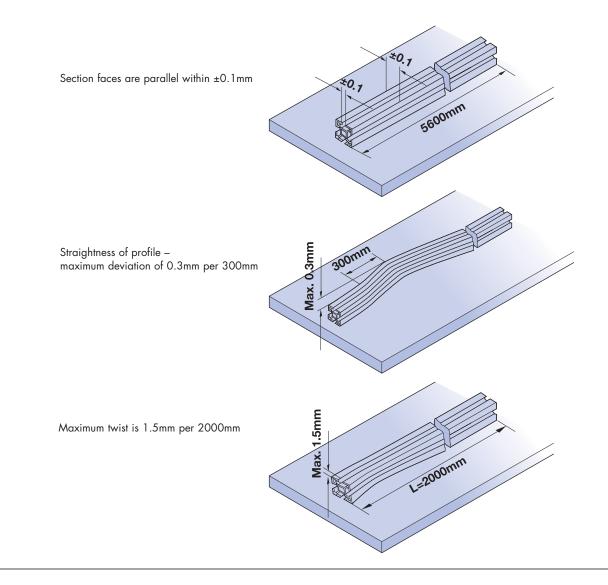
The end of this section shows details of how to machine **MCS** profiles to accept various connection methods. This machining can be carried out by Hepco on request - contact our Sales Department for full details.

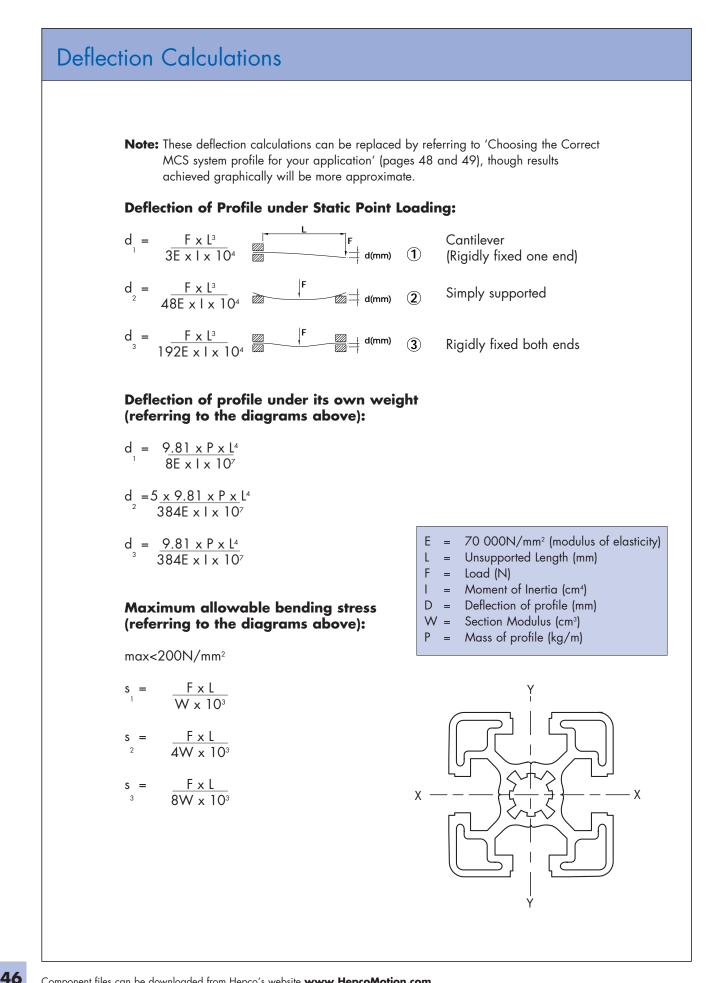
- * Moment of Inertia is the ability of a profile to withstand bending.
- **Section Modulus is a ratio which allows calculation of the stress in a profile created by this bending.

Aluminium Profile

Technical Specification

Material Designation	AIMgSi0.5F25
Material Number	AI6063-T5
Minimum Tensile Strength	250N/mm ²
0.2% Proof Stress	160N/mm ²
Modulus of Elasticity	70 000N/mm ²
Coefficient of Thermal Expansion	(-50+20°C) = 21.8 x 10° 1/K (+20+100°C) = 23.8 x 10° 1/K
Anodizing Process	E6/EV1 Clear
Thickness of Layer	10 µm
Hardness	300 HV





Selection Data

Moment of Inertia, Section Modulus and Mass of MCS System Structural Profile Sections

Mc	oment Ixx	of Inertia (cm⁴) Iyy	Section Moc Wxx	lulus (cm³) Wyy	Mass (kg/m)
20 x 20	0.65	0.65	0.65	0.65	0.43
20 x 40	4.5	1.2	2.2	1.2	0.76
30 x 30	3.2	3.2	2.1	2.1	0.87
30 x 60	20.9	5.9	6.9	3.9	1.53
30 x 90	64.1	8.5	14.2	5.7	2.19
40 x 40SL	7.8	7.8	3.9	3.9	1.3
40 x 40L	8.4	8.4	4.2	4.2	1.4
40 x 40	10.2	10.2	5.1	5.1	1.7
40 x 1NS	9.9	10.3	4.9	5.15	1.7
40 x 2NS	10.3	10.3	5.1	5.1	1.7
40LR	6.0	6.0	2.6	2.6	1.2
40 x 80L	52.6	14.3	13.15	7.15	2.1
40 x 80	61.4	17.0	15.3	8.5	2.6
40 x 80 - 2NS	55.8	15.2	13.9	7.6	2.35
40 x 80 - 3NS	54.5	14.8	13.6	7.4	2.32
45 x 45SL	10.1	10.1	4.5	4.5	1.4
45 x 45L	10.4	10.4	4.6	4.6	1.5
45 x 45	14.0	14.0	6.2	6.2	1.9
45 x 1NS	13.0	13.5	5.8	6.0	1.9
45 x 2NS	12.9	12.9	5.7	5.7	1.8
45LR	7.2	7.2	2.8	2.8	1.2
45°	9.6	10.4	4.1	4.7	1.5
45 x 60L	24.3	15.3	8.1	6.8	2.1
45 x 60	35.0	22.0	11.6	9.8	2.8
45 x 90L	93.6	22.0	20.8	9.8	3.13
45 x 90	100.9	29.4	22.4	13.0	3.6
45 x 90 - 2NS	96.3	27.6	21.4	12.3	3.4
45 x 90 - 3NS	94.4	27.3	21.0	12.1	3.4
60 x 60L	37.0	37.0	12.3	12.3	2.9
60 x 60	47	47	15.7	15.7	3.6
60 x 90	129.2	2 59.8	28.7	19.9	4.4
80 x 80SL	97.6	97.6	29.4	24.4	3.6
80 x 80L	110.7	7 110.7	27.7	27.7	4.1
80 x 80	124.4	124.4	31.1	31.1	4.7
80 x 80 - 2NS	102	100	25.5	25	3.7
80 x 80 - 4NS	104	104	26	26	3.7
80 x 120	362	176	60	44	6.4
80 x 160	893	262	111	65.5	9.1
90 x 90L	193	193	42.9	42.9	5.6
90 x 90	285	285	63	63	9.3

Selection Data

Choosing the correct MCS System Profile for your Application

These instructions will aid the selection of an **MCS** System profile when a point load is applied. Steps A to E refer to paths which should be followed on the diagram opposite. The paths will confirm or deny an estimate of the correct **MCS** System profile for any given application. For calculation of other loading types please refer to the relevant mechanical texts.

The diagram overleaf is a graphic representation of the deflection calculations on page 46.

It will be necessary to differentiate between the three loading types:

1. Cantilever load (rigidly fixed at one end)	F d(mm)	1)
2. Simply supported	F d(mm)	0
3. Rigidly fixed both ends		0
	₩ 4(mm)	3

Procedure for determining the deflection of an MCS System profile when the following details are known:

Applied load, unsupported length, and selected profile size (an estimate will need to be made of the most suitable size at this stage).

- A. Find the applied load on the Y1 axis. Draw a horizontal line from that point across the graph.
- **B.** Now find the unsupported length L on the X axis. From this point draw a vertical line upwards through the graph.
- **C.** Find the intended section Moment of Inertia on the Y2 axis (values for MCS System standard sizes are shown in the table to the right of the graph). From this point draw a second horizontal line across the graph.
- **D.** Draw a line through the intersection of the lines A & B, parallel to the diagonal lines running across the graph and intersect this new diagonal with line C.
- **E.** From the point at which line D intersects with line C, draw a vertical line up the graph; this line should cross through the relevant logarithmic scale (load type 1, 2 or 3 above). The deflection for the given loading condition can now be read from the scale.

Steps A to E may also be used in a variety of sequences, depending on the variables shown. See below:

To find the optimum MCS System profile size when maximum deflection, applied load and unsupported length are known, use the following sequence:

A < B < E < D < C

To find the maximum load for a given profile size, when maximum deflection and unsupported length are known, use:

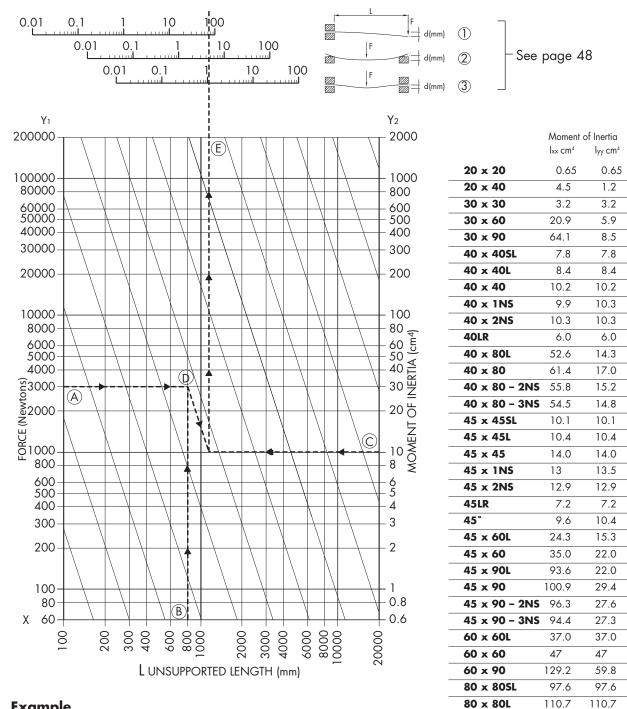
C < E < B < D < A

To find the maximum unsupported length, for a given profile size, when maximum deflection and applied load are known, use:

C < E < A < D < B

48

Selection Data



Example

A static point load of 3000N is applied centrally to an MCS System profile which is rigidly supported both ends. The total unsupported length is 800mm. It has been estimated that a 45 x 45L profile will suffice for this application. Using the Moment of Inertia figure for this profile, steps A to E are followed in sequence. From nomogram 3 (for rigidly fixed profiles) we can see that deflection will be approximately 1mm, which is deemed to be acceptable for the application.

80 x 80

80 x 120

80 x 160

90 x 90L

90 x 90

80 x 80 - 2NS 102

80 x 80 - 4NS 104

124.4

362

893

193

285

124.4

100

104

176

262

193

285

Selection Data Profile Connection Carrying Capacity L = OF max M max F max Offset Load (LxF) Nm Nm **Profile Connections Direct Load N Joint Position** Bracket 17 x 25 400 8 2 Bracket 20 x 28 1200 25 6 Bracket 36 x 36 🖉 1800 10 60 Bracket 42 x 43 2000 90 12 Bracket 42 x 88 180 30 4000 Bracket 57 x 57 2000 90 12 Bracket 75 x 75 🕼 7000 300 90 Bracket 88 x 88 7000 350 100 P Angle Bracket 2000 80 12 Bracket 17 x 25 400 2 20 Bracket 20 x 28 D1200 70 6 Bracket 36 x 36 1800 145 10 Bracket 42 x 43 A 2000 180 12 (i Bracket 42 x 88 4000 360 30 Ø Bracket 57 x 57 2000 180 12 Bracket 75 x 75 Ð 7000 700 90 Ø Bracket 88 x 88 7000 750 100 Angle Bracket 2000 120 12 Flexi T (A) 1500 140 Flexi T (B) 1500 140 OT OT Flexi Angle 1500 140 Flexi Mitre 1500 140 Flexi Straight () 1500 140 Flexi Threaded () 1500 140

Component files can be downloaded from Hepco's website **www.HepcoMotion.com**

Selection Data

Profile Connections	Direct Load N	Offset Load (LxF) Nm	Twisting Load Nm	Joint Position Nm
Interior Bracket	800	80	10	
Interior Bracket	800	8	10	
Bolt Connector 20 x 39L	4000	400	25	
Bolt Connector 20 x 59L	4000	600	50	
Connection Screw 🍟 M5 x 20	500	20	-	
Connection Screw M8 x 30	1500	80	-	
Connection Screw M12 x 30	3000	200	-	
End Connector Set	3000	200	50	
Knuckle Joint 45 x 45	3000	200	50	
Knuckle Joint 45 x 60	3000	200	50	

Selection Data

Connection Cross-Reference Chart

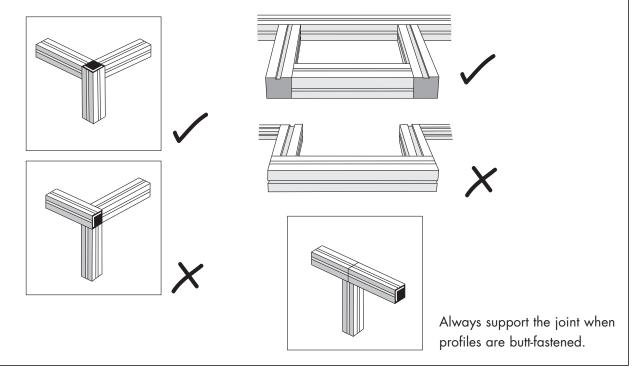
	Flexi Connector	Angle Brackets	Interior Bracket	Bolt Connector	Connection Screw
Flexibility of Usage	****	****	**	**	***
Adjustability	****	****	***	*	*
Frame Stiffness	****	****	**	****	****
Vibration Resistance	****	**	*	****	****
Space Requirement	****	**	****	****	*****
Tolerance of Inaccuracy ¹	****	****	****	*	****
Cost Effectiveness ²	****	****	****	**	****
Aesthetic Finish	****	*	****	****	****
****	= Highest/Be	est			

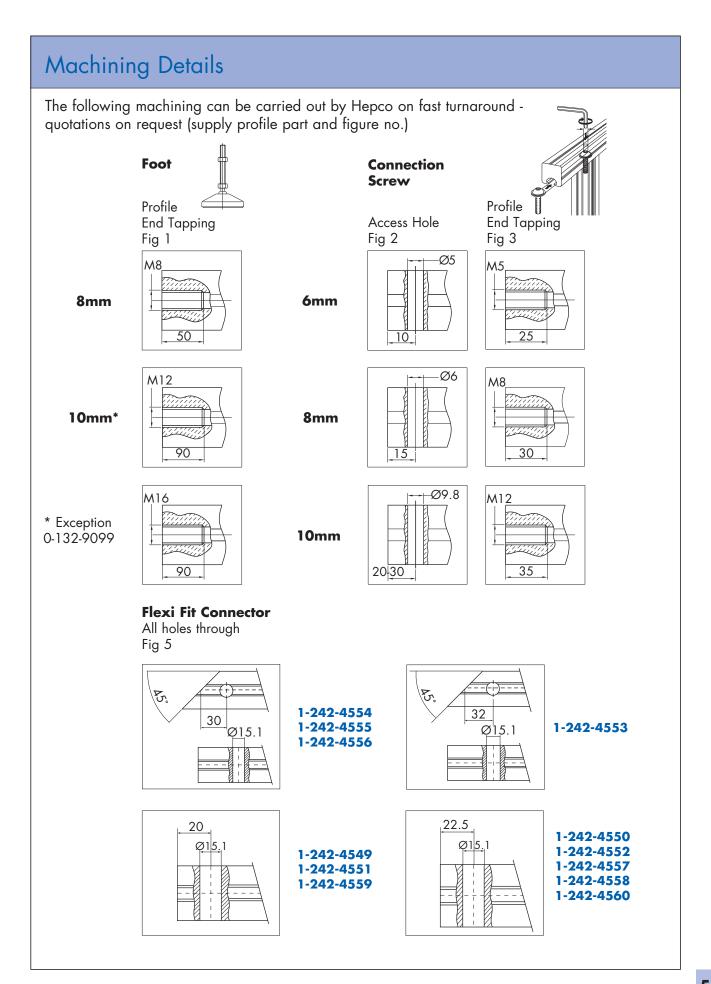
= Lowest/Worst

- ¹ 'Tolerance of Inaccuracy' refers to the time and care needed when building MCS System frames with the various connection methods. For example, Angle Brackets will tolerate low build accuracy, which is quickly and cheaply achieved, whereas Bolt Connectors will not.
- ² 'Cost effectiveness' is a measure not only of component costs, but also takes into account the time required to build various connection methods into MCS System frames.

Assembly Hints

Vertical Profiles should run unbroken from the bottom to the top of a frame, with horizontal profiles assembled to the vertical.





Component files can be downloaded from Hepco's website **www.HepcoMotion.com**

MCS Profiles with Linear Guides

Hepco GV3 & SL2 Slide Systems mounted to MCS Profiles



MCS aluminium profiles are available fitted with Hepco Linear Slide Systems as complete ready to install units incorporating either carbon chrome GV3 slides or SL2 stainless steel slides. Slides with independent fixings are available for customers preferring self assembly.

The proven Hepco 'V' slide principle, with its one piece edge hardened steel slideway, is the ideal choice for motion guidance in frame construction systems.

Hepco Slide Systems are suitable for running with or without lubrication. Higher loads and longer life can be achieved if lubricated and various devices are available for this purpose. Customers may choose from a number of carriage lengths to provide various sizes of platform for mounting. Carriage plates are constructed in aluminium to minimise inertia.

Benefits

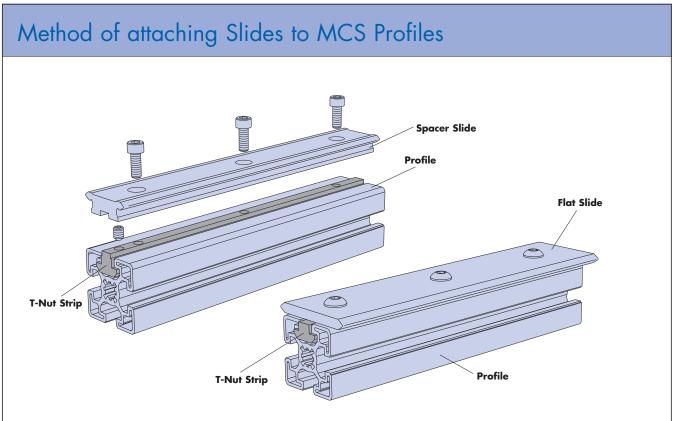
- High load capacity with long life
- Quiet friction-free motion
- Easy to install and adjust
- Works in any plane
- Accepts load in all directions
- Tolerant of debris
- Tolerant of misalignment
- Little or no maintenance

GV3 6 types of carriage cater for most design requirements and 3 grades of slide precision allows selection according to cost/performance requirements. Numerous sizes and options makes this the most versatile slide system available.

SL2 is available in basic GV3 standard carriage format, with fine ground surface finish of stainless steel components for maximum corrosion resistance. Aluminium carriage with U.S.D.A approved surface treatment provides corrosion resistance better than most stainless steels.

Request the GV3+SL2 catalogue (01884 257000) or download from the HepcoMotion website: w.HepcoMotion.com





The method of fixing provides location of spacer slide and retention of fixing screw position in the event of disassembly.

Selection Procedure





The information in this catalogue facilitates initial selection of the slide system and provides details of compatibility with MCS profiles. For comprehensive information, full load/life details and some ordering references, it will be necessary to also refer to the GV3 and SL2 catalogues.

Stage 1

Select the type of carriage required from the various options illustrated on pages 56 and 57. Note the Slide types, Slide precision grades, Bearing types and Lubrication Devices generally available for each carriage type.

Stage 2

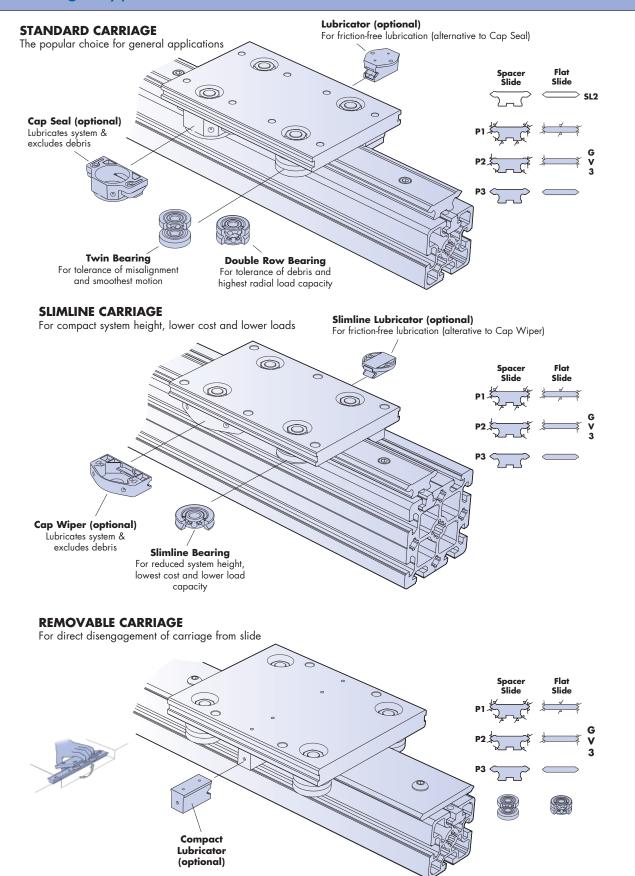
(Spacer Slides Ref. pages 58 & 59; Flat slides Ref. pages 60 & 61):

Select the MCS profile required and choose a compatible slide taking account of the slide and bearing type for the chosen carriage, system dimensions, load requirements and specific availability of various options.

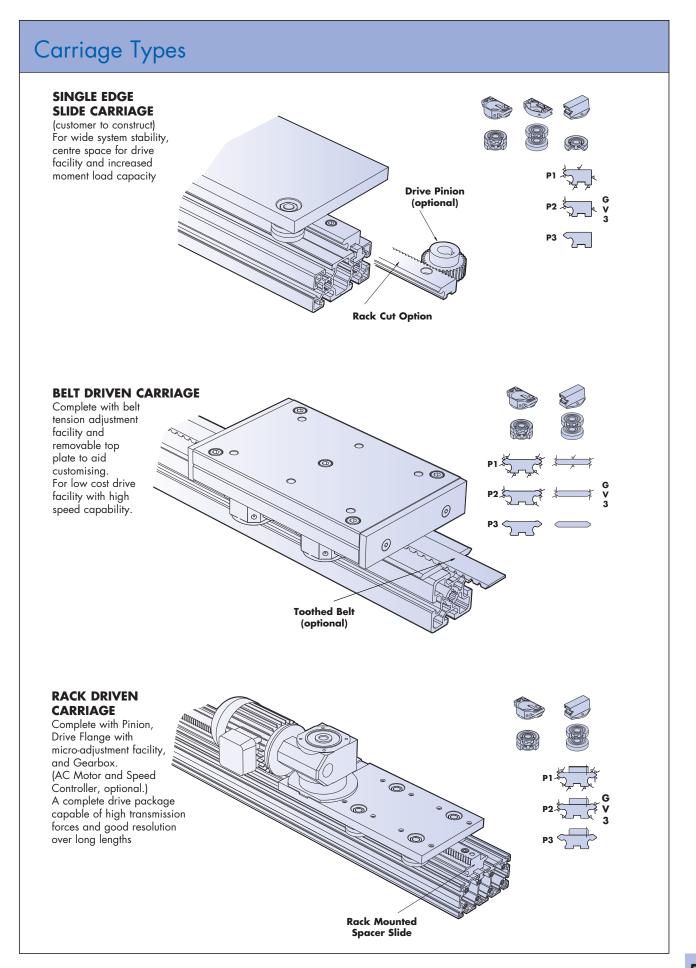
Stage 3

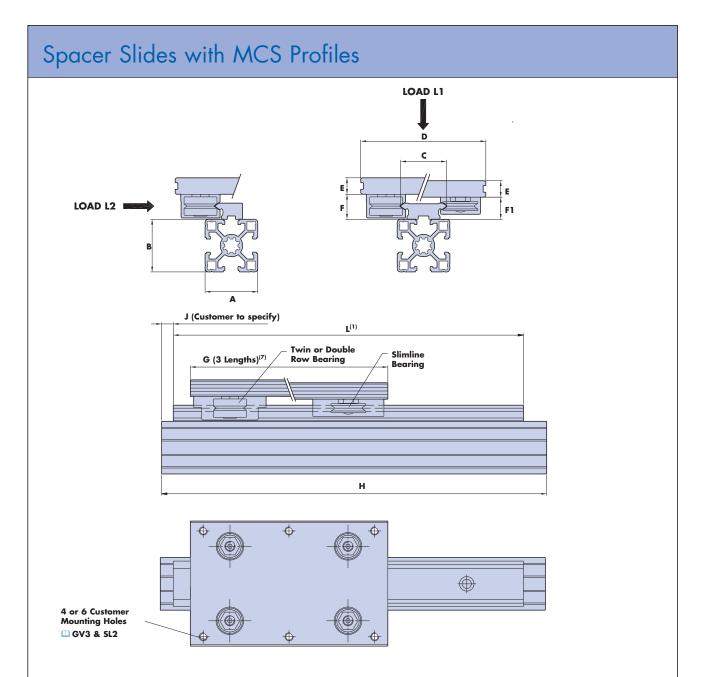
Refer to ordering details on page 62.





56





Notes:

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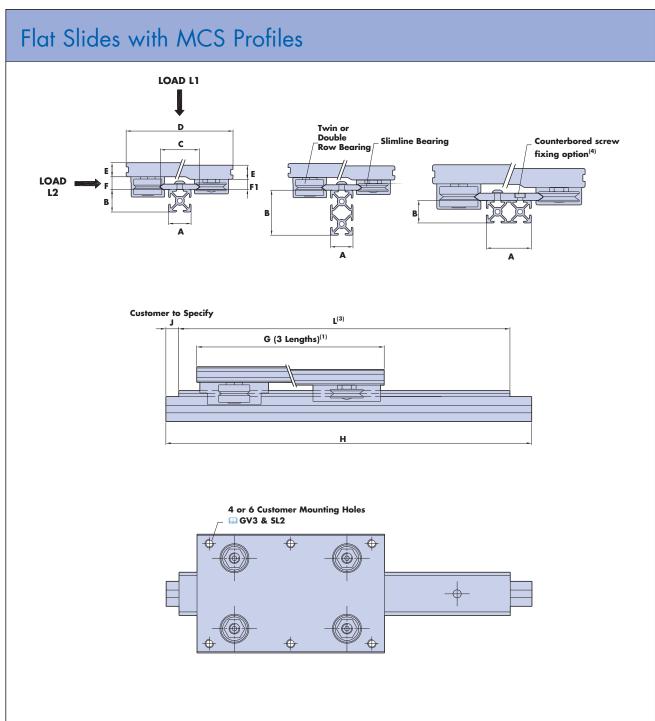
(1) Slide lengths are available to customers' requirements up to 3956mm. Unlimited lengths can be achieved by butting.

- (2) Hepco Rack Driven Carriage not available, but customers may construct their own using GV3 Pinion GV3 P45.
- (3) Carriage Plate to be constructed by customer.
- (4) Rack Driven Carriage is offset in relation to centre of slide. Length and configuration is to customers requirements GV3 P49.
- (5) All types of carriage with the exception of some sizes of Rack and Belt driven carriages (see table) are available to suit all sizes of double edge GV3 spacer slides.
- (6) NM76 & NL76 spacer slides can only be attached to the two centre most positions of the 160mm wide face of the 80 x 160 profile.
- (7) Cap seals/cap wipers are not available for the shortest length carriages. Belt Driven Carriages are available in 2 lengths only GV3 P46-47.

ſ	5			s	LIDE	PAF	RT NUMBER				(5) R	ACK DR	IVE CAR	RIAGE A	VAILBIL	.ITY		LC	DAD (C)	LUBRIC	ATED (N	NEWTO	√S)
R	Ĩ	GV2 <	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	GV	35	,	GV3 ~	SL2 5	~			(5) BELT DRIVE CARRIAGE AVAILABILITY									R	(Carlor)	Ð
-		av3		uv		ۍ	uvs []	362 2-		۷	Y		-	-	-	07		-			2	-	Ť
A	B	NV	C 20		С				C			D 64	E 10	~F 15	~F1	65 100	140	L1	L2	L1	L2	L1	L2
20	20			NV	20	R			<u> </u>			(2)	(2)	15	-	(2)		1					
20	40	NV	28									72	11	15	14	75 125	175	760	1200	500	400	400	480
40	20			NV	28	R						(2)	(2)	15	-	(2)]					
							NVE					(3)	(3)	15	14	(3)							
		NV	28	ND/	00							72 (2)	(2)	15	14 -	75 125 (2)	175	700	1000	500	400	400	400
				NV	28	R	NVE		-			(3)	(3)	15 15	- 14	(2)		760	1200	500	400	400	480
		NS	25						-			80	11.5	19	17	80 135	180						-
30	30			NS	25	R						(2)	(2)	19	-	(2)		1600	3000	1280	1200	940	115
30	60							SSNS	25			80	11.5	19	-	80 130	180	1600	3000	960	960		
30	90	NS	35								1	95	12.5	19	17	100 150	200	1600	3000	1280	1200	940	115
60	30			NS	35	R						(2)	(2)	19	-	(2)							
90	30			-			NSE		-			(3)	(3)	19	17	(3)	007	1600	3000	1280	1200	940	115
		NM	44	NM	44	R			-	1	1	116 (4)	14.5 18	24 24	21	125 180 (4)	225	3600	6000	3200	2800	2000	2400
		<u> </u>			+4	- n		SSNM	44	-		116	14.5	24	-	125 175	225	3600	6000	3000	3000		-
				+	-		NME		1.1			(3)	(3)	24	21	(3)		3600	6000	3200	2800	2000	240
		NV	28									72	11	15	14	75 125	175						
				NV	28	R						(2)	(2)	15	-	(2)		760	1200	500	400	400	480
		NS	25									80	11.5	19	17	80 135	180	1600	3000	1280	1200	940	115
				NS	25	R						(2)	(2)	19	-	(2)							
			05	-				SSNS	25			80	11.5	19	-	80 130	180	1600	3000	960	960		-
40	40	NS	35	NS	35	R			-		1	95 (2)	12.5 (2)	19 19	17 -	100 150 (2)	200	-					
40	80	NS	50		00				-		1	112	14	19	17	110 160	220	1600	3000	1280	1200	940	1150
80	40	<u> </u>		NS	50	R			-		-	(2)	(2)	19	-	(2)							
80	80						NSE					(3)	(3)	19	17	(3)							
80	160	NM	44								~	116	14.5	24	21	125 180	225	3600	6000	3200	2800	2000	240
160	80			NM	44	R				1		(4)	18	24	-	(4)						2000	2400
								SSNM	44			116	14.5	24	-	125 175	225	3600	6000	3000	3000		
		NM	60	NM	60	R			-	1	1	135 (4)	17 18	24 24	21	150 200 (4)	280	3600 3600 600	6000	3200	2800	2000	240
		<u> </u>		INIVI	00	n	NME		-	~		(4)	(3)	24	- 21	(4)		3000	0000	3200	2000	2000	2400
		-		-			NLE		-			(3)	(3)	38.6	33.4	(3)		10000	10000	7200	6400	4240	5200
		NM	76(6)								1	150	18	24	21	170 240	340	0000	0000	0000	0000	0000	0.400
				NM	76	R ⁽⁶⁾				1		(4)	18	24	-	(4)		3600	6000	3200	2800	2000	2400
160	80	NL	76(6)									185	20	38.6	33.4	200 300	400	10000	10000	7200	6400	4240	520
		<u> </u>		NL	76	R ⁽⁶⁾				1		(4)	20	38.6	-	(4)							
_		NV	28					SSNL	76(6)			185 72	20 11	38.6	-	200 300 75 125	400 175	8000	10000	6000	6000		-
			20	NV	28	R						(2)	(2)	15 15	-	75 125 (2)	1/5	760	1200	500	400	400	480
		NS	25		20				-			80	11.5	19	17	80 135	180						
				NS	25	R						(2)	(2)	19	-	(2)		1600	3000	1280	1200	940	115
								SSNS	25			80	11.5	19	-	80 130	180	1600	3000	960	960		
45	45	NS	35								1	95	12.5	19	17	100 150	200						
45	60	110		NS	35	R						(2)	(2)	19	-	(2)	000	1000	00000	1000	1000	0.10	
45	90	NS	50	NS	50	R					1	112 (2)	(2)	19 19	17 -	110 160 (2)	220	1600	3000	1280	1200	940	115
60	45			113	50	n	NSE		-			(2)	(2)	19	- 17	(2)							
60	60	NM	44								1	116	14.5	24	21	125 180	225						
90	90			NM	44	R				1		(4)	18	24	-	(4)		3600	6000	3200	2800	2000	240
								SSNM	44			116	14.5	24	-	125 175	225	3600	6000	3000	3000		
		NM	60								1	135	17	24	21	150 200	280						
				NM	60	R				1		(4)	18	24	-	(4)		3600	6000	3200	2800	2000	2400
							NME					(3)	(3)	24	21	(3)		10000	10000	7000	6400	4040	E00
_		NM	76				NLE				1	(3) 150	(3) 18	38.6 24	33.4 21	(3) 170 240	340	10000	10000	7200	0400	4240	520
			/0	NM	76	R		1	-	1	-	(4)	18	24	-	(4)	040	3600	6000	3200	2800	2000	240
60	45	NL	76						-	ŀ		185	20	38.6	33.4	200 300	400						
60	60		-	NL	76	R				1		(4)	20	38.6	-	(4)		10000	10000	7200	6400	4240	5200
				1				SSNL	76			185	20	38.6	-	200 300	400	8000	10000	6000	6000		

Compatibility Table Spacer Slides with MCS Profiles

Slide hole centres and fixing screw sizes and types may vary from those specified in the GV3 & SL2 catalogues. There may also be additional and redundant holes.



Notes:

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- (1) Cap seals/cap wipers are not available for the shortest length carriages. Belt Driven Carriages are available in 2 lengths only **GV3 P46-47**.
- (2) Standard, Slimline and Removable Carriages are available to suit all sizes of GV3 Flat slides. Some sizes of slide are also available to suit Belt Driven Carriages (see table). On special application, Flat Slides can be fitted with mounted Rack and supplied with Rack Driven Carriages.
- (3) Slide lengths are available to customers' requirements up to 3956mm. Unlimited lengths can be achieved by butting.
- (4) The counterbored screw fixing option with low head socket cap screws DIN 6912 will be supplied for double row slide fixing when used with slimline carriage.

Compatibility Table Flat Slides with MCS Profiles

R	รา	SLID	e paf	RT NUM	IBER		FITS WIT												RIAGE (2)	LOAD (C) LUBRICATED (NEWTONS)						
ľ	S	GV	'3 ⁽²⁾	SL	.2	X =	FITS WIT WILL NO NOT APP	T FIT		DE ONLY		8)	DRIVEN CARRIAGE					<u>s</u>	R	
Α	В		C		С	D	Е	~F	~F1		G ⁽¹⁾		t						BELT D	L1	L2	L1	L2	L1	L2	
		۷	28			72	11	9	7.9	75	125	175	1	P3	P3	~	P3	1		760	1200	500	400	400	480	
20 20	20 40	S	35			95	12.5	11.4	9.2	100	150	200	1	1	1	1	1	1	1	1600	3000	1280	1200	940	1150	
				SSS	35	95	12.5	11.4	-	100	150	200	1	1	1	-	-	-		1600	3000	960	960	-	-	
		М	44			116	14.5	14.6	11.4	125	180	225	1	>	P3	~	1	1	1	3600	6000	3280	2800	800	800	
30 30	30 60			SSM	44	116	14.5	14.6	-	125	175	225	1	1	×	-	-	-		3600	6000	3000	3000	-	-	
30	90	S	50			112	14	11.4	9.2	110	160	220	1	1	1	1	1	1	1	1600	3000	1280	1200	940	1150	
				SSS	50	112	14	11.4	-	110	160	220	1	1	1	-	-	-		1600	3000	960	960	-	-	
60	30	М	76			150	18	14.6	11.4	170	240	340	1	1	1	1	1	1	1	3600	6000	3200	2800	2000	2400	
				SSM	76	150	18	14.6	-	170	240	340	~	~	~	-	-	-		3600	6000	3000	3000	-	-	
90	30	L	120			240	24	23.6	18.9	240	360	480	P3	P3	P3	P3	P3	P3		10000	10000	7200	6400	4240	5200	
40	20	S	50			112	14	11.4	9.2	110	160	220	~	~	P3	~	P3	~	1	1600	3000	1280	1200	940	1150	
	20			SSS	50	112	14	11.4	-	110	160	220	1	1	×	-	-	-		1600	3000	960	960	-	-	
		S	50			112	14	11.4	9.2	110	160	220	~	1	P3	~	P3	1	1	1600	3000	1280	1200	940	1150	
				SSS	50	112	14	11.4	-	110	160	220	1	1	x	-	-	-		1600	3000	960	960	-	-	
		М	60			135	17	14.6	11.4	150	200	280	1	1	~	~	~	~	1	3600	6000	3200	2800	2000	2400	
40	40			SSM	60	135	17	14.6	-	150	200	280	1	1	1	-	-	-		3600	6000	3000	3000	-	-	
40	80	М	76			150	18	14.6	11.4	170	240	340	1	1	1	1	1	1	1	3600	6000	3200	2800	2000	2400	
				SSM	76	150	18	14.6	-	170	240	340	1	1	1	-	-	-		3600	6000	3000	3000	-	-	
		L	76			185	20	23.6	18.9	200	300	400	1	1	1	1	1	1		10000	10000	7200	6400	4240	5200	
				SSL	76	185	20	23.6	-	200	300	400	1	1	1	-	-			8000	10000	6000	6000	-	-	
		М	60			135	17	14.6	11.4	150	200	280	1	1	1	~	~	1	1	3600	6000	3200	2800	2000	2400	
				SSM	60	135	17	14.6	-	150	200	280	1	1	1	-	-	-		3600	6000	3000	3000	-	-	
45 45	45 60	М	76			150	18	14.6	11.4	170	240	340	1	1	1	~	1	1	1	3600	6000	3200	2800	2000	2400	
45	90			SSM	76	150	18	14.6	-	170	240	340	1	1	1	-	-	-		3600	6000	3000	3000	-	-	
		L	76			185	20	23.6	18.9	200	300	400	1	1	1	1	1	1		10000	10000	7200	6400	4240	5200	
				SSL	76	185	20	23.6	-	200	300	400	1	1	1	-	-	-		8000	10000	6000	6000	-	-	
		М	76			150	18	14.6	11.4	170	240	340	1	1	1	1	1	1	1	3600	6000	3200	2800	2000	2400	
60 60	45 60			SSM	76	150	18	14.6	-	170	240	340	1	1	1	-	-	-		3600	6000	3000	3000	-	-	
00	00	L	76			185	20	23.6	18.9	200	300	400	P3	P3	P3	P3	P3	P3		10000	10000	7200	6400	4240	5200	
				SSL	76	185	20	23.6	-	200	300	400	1	1	~		-			8000	10000	6000	6000	-	-	
80 80 80 90 90	40 80 160 45 90	L	120			240	24	23.6	18.9	240	360	480	P3	P3	P3	P3	P3	P3		10000	10000	7200	6400	4240	5200	

Slide hole centres and fixing screw sizes and types may vary from those specified in the GV3 & SL2 catalogues. There may also be additional and redundant holes.

Ordering Details

8080(L) - H2200 - J50 - 2C / NM44 - L806 - P2 - (R) - (C) / 1X - AU4434 -L180 - CS - DR

Counterbored hole option for flush surface on GV3 Flat Slides.

Rack mounted to GV3 Spacer Slide (GV3 Flat slide mounting to special order).

Slide precision grade. Options are P1, P2, & P3. Leave blank for SL2 slide.

Slide length 'L'.

Slide section part number.

Slide mounting position number. 'C' for clockwise or 'A' for anti-clockwise facing of Single edge slide (leave blank for self assembly or if not relevant).

Slide position 'J' (leave blank for self assembly).

Profile length 'H' (leave blank if profile not required).

Profile size (80x80). L designates alternative shape profile.

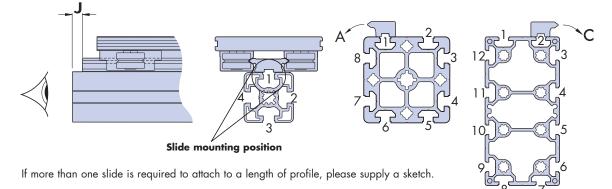
1x - AU4434 - L180 - CS - DR = Carriage reference (example only). Please specify from GV3 or SL2 - catalogue according to following procedure:

Carriage identification (GV3):

- Refer to tables on relevant Carriage page of GV3 catalogue (Standard Carriage, Removable Carriage, Slimline Carrage, Belt Driven Carriage or Rack Driven Carriage).
 N.B The Single Edge Slide Carriage is for construction by the customer, therefore individual Bearings and Lubrication Devices etc. must be selected from the GV3 catalogue.
- 2. Read off the basic carriage part number in column 1, adjacent to the chosen slide part number in column 2.
- 3. Determine the full carriage part number to include the options required by following the Ordering Details below the table.

Carriage Identification (SL2):

- 1. Refer to the table on Assembled Systems (see page 9 of the SL2 catalogue).
- 2. Identify the basic carriage part number in column 1 according to the chosen slide part number. The slide part number is the last five letters / numbers of the carriage part number.
- 3. Determine the full carriage part number to include the options required by following the Ordering Details below the table.



MCS Profiles with Linear Guides

Hepco Powerslide 2 supported on MCS Profile Beams



Request the MCS/HPS catalogue & Mounting document (01884 257000) or download from the HepcoMotion website: www.HepcoMotion.com



High-speed, maintenance free performance are the key benefits of Hepco's Powerslide 2, with ex-stock availability and standard lengths up to 6m.

The HPS range of pneumatic linear systems is based around an extruded aluminium cylinder ideal for mounting to **MCS**. With the optional addition of **Hepco SH** shock absorbers high speed, long life systems can be achieved.

Mounting to MCS profiles whether by the end caps or tailored connectors could not be easier. For further details please contact Hepco's Technical Sales Team.

Benefits

- Self supporting Long life 10 size combinations High load Easy installation
- Corrosion resistant options

Hepco Driven Linear System supported on MCS profile beams



Request the MCS/DLS catalogue & Mounting document (01884 257000) or download from the HepcoMotion website: www.HepcoMotion.com



New fixing options are available in the **MCS** range allowing specifiers to take advantage of the ready to mount high speed Driven Linear System.

Ideal for simple linear or multi-axis systems, DLS incorporates all of the Hepco V-guide benefits of zero maintenance and environmental tolerance, but combines them with a robust belt drive producing speeds of up to 6m/s and standard lengths up to 8m.

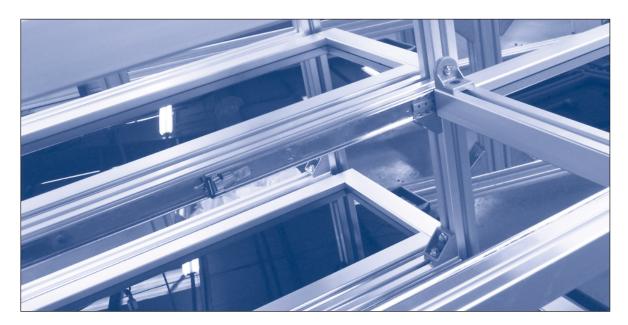
A range of mounting options are available to enable easy connection to **MCS** profiles which, due to their interchangeability with other profiles, makes this the ideal system for retro-fitting machine elements.

Benefits

- Long system life Low maintenance High speed Quiet operation
- Easy secondary machining
 Robust AC motor system

MCS Profiles with Linear Guides

Hepco HTS Telescopic Ball Bearing Slides mounted to MCS profiles



Hepco HTS telescopic ball bearing slides are manufactured under strict quality control conditions backed by ISO 9002 certification using the highest quality materials and up to date manufacturing processes. These high quality slides are quiet, rigid under extended loads and due to the superior construction offer excellent smooth motion and low friction characteristics across the complete travel length.

Hepco's Telescopic slides are an ideal partner with **MCS** aluminium profile sections enabling simple yet rigid drawers, printer tables, circuit board packs etc to be designed into any Hepco **MCS** frame available. Mounting of the slides is simple utilising Hepco's range of anti rotation T-Nuts.

Features and Benefits

64

- 5 basic ranges from light to heavy duty up to 280kg/pair
- Range of options available, lock out, lever disconnect etc.
- Standard ranges available from stock
- Rigid member ball bearing slide structure maintains smooth motion over entire travel
- High static capacity from rigid structure with minimal deflection
- Quality cold rolled steel members with slotted mounting holes for quick installation
- Exceptional accuracy from precision pressed slide rails
- 3 member slide series for higher capacity in narrow space

Request the HTS catalogue (01884 257000) or download from the HepcoMotion website: www.HepcoMotion.com



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HepcoMotion® Product Range



GV3 Linear Guidance and **Transmission System**



SBD Sealed Belt Drive



HDS2 Heavy Duty Slide System



MCS Aluminium Frame and Machine Construction System



Precision Ring and Track System

HDLS

Heavy Duty Driven

Linear System



HDRT Heavy Duty Ring Slides and Track System



SL2

Stainless Steel Based

Slide System



LBG Linear Ball Guides

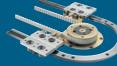


DLS Linear Transmission and Positioning System



HPS Powerslide-2 Guided **Rodless** Cylinder





MHD Heavy Duty Track Roller Guidance System



BSP Ballscrew Premier

(Simple||Select*) Vee Slide Linear **Guidance** Systems

PDU2 Profile Driven Unit

0

Bearing Slides

PSD120 Profile Screw Driven Unit

Bishop-Wisecarver Product Range

HepcoMotion® – Exclusive European partners and distributors for Bishop-Wisecarver since 1984.



LoPro® /ee® Aluminium Based Single Edge Slide System Slide System



Guideway

For further information on HepcoMotion® products please request our leaflet 'FPL'

HepcoMotion[®]

INVESTOR IN PEOPLE



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