MCS aluminium frame and machine construction system
# Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Application Examples</td>
<td>2</td>
</tr>
<tr>
<td>Aluminium Profiles – Structural Sections</td>
<td>3</td>
</tr>
<tr>
<td>Aluminium Profiles – Specialist Sections</td>
<td>14</td>
</tr>
<tr>
<td>Profile Connections</td>
<td>22</td>
</tr>
<tr>
<td>Accessories</td>
<td>38</td>
</tr>
<tr>
<td>Technical Details</td>
<td>50</td>
</tr>
<tr>
<td>- Aluminium Profile Technical Specification</td>
<td></td>
</tr>
<tr>
<td>- Deflection Calculations</td>
<td></td>
</tr>
<tr>
<td>- Moment of Inertia, Section Modulus and Mass of MCS System</td>
<td></td>
</tr>
<tr>
<td>- Structural Profile Sections</td>
<td></td>
</tr>
<tr>
<td>- Choosing the correct MCS System Profile for your application</td>
<td></td>
</tr>
<tr>
<td>- Profile Connection Carrying Capacity</td>
<td></td>
</tr>
<tr>
<td>- Connection Cross Reference Chart</td>
<td></td>
</tr>
<tr>
<td>- Assembly Hints</td>
<td></td>
</tr>
<tr>
<td>- Machining Details</td>
<td></td>
</tr>
<tr>
<td>Profiles with Linear Guides</td>
<td>60</td>
</tr>
<tr>
<td>- Hepco Slide Systems mounted to MCS System Structural Sections</td>
<td></td>
</tr>
<tr>
<td>- Gen II – Precision Slide System</td>
<td></td>
</tr>
<tr>
<td>- SL2 – Stainless Steel Based Slide System</td>
<td></td>
</tr>
<tr>
<td>- CM – Commercial Slide System</td>
<td></td>
</tr>
<tr>
<td>Index</td>
<td>68</td>
</tr>
<tr>
<td>CAD and Catalogue Request Form</td>
<td>69</td>
</tr>
</tbody>
</table>

## Symbols Used in this Catalogue

- Size of profile T-Slot - specify connecting components to suit
- Profile End Tapping Size
- Jointing Elements which require profile machining
- Refer to page number - for complementary components or further details
The Hepco MCS System offers a wide 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.

Profile machining and frame construction to customer’s drawings is carried out by Hepco on very fast delivery times. Alternatively, specific cut and random lengths can be supplied to customers wishing to construct their own system. Frame design and specification is aided by the use of the MCS CAD 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.

How the Hepco MCS System saves Time and Money

**WELDED STEEL FRAMEWORK**

**MCS MACHINE CONSTRUCTION SYSTEM**

350 minutes

100 minutes
Areas of Application

- Special Purpose Machines
- Work Benches
- Robotic and Manipulating Systems
- Machine Guards/Protective Frameworks
- Enclosures
- Assembly and Packaging Machinery
- Exhibition Display Units
- Shelving Systems

Assembly line for Engine Control Units

Manufacture of Fuel Tank Pressure Sensors – Machine bases and guard

Component Carriers for assembly lines

Work Table
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, hard-wearing basis for all types of frame construction.

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 standard in 6000mm lengths, with the exception of the largest and smallest 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 59 for end finishing details.

For details of 'Choosing the correct MCS System profile for your application' please refer to pages 54 to 55. Complete Technical details may be found on pages 50 to 59.
### 20 x 20

**Technical Data**
- Max. Length: 4000mm
- Mass: 0.44kg/m
- Moment of Inertia (cm^4): I_{xx} 0.7, I_{yy} 0.7
- Section Modulus (cm^3): W_{xx} 0.7, W_{yy} 0.7

### 20 x 40

**Technical Data**
- Max. Length: 4000mm
- Mass: 0.77kg/m
- Moment of Inertia (cm^4): I_{xx} 4.5, I_{yy} 1.2
- Section Modulus (cm^3): W_{xx} 2.2, W_{yy} 1.2

**Available Soon**
Phone for details
ALUMINIUM PROFILES

30 x 30
0-132-3030

QUICK REFERENCE

TECHNICAL DATA

• Max. Length 6000mm
• Mass 0.94kg/m
• Moment of Inertia (cm^4) Ixx 3.4
  Iyy 3.4
• Section Modulus (cm^3) Wxx 2.2
  Wyy 2.2

30 x 60
0-132-3060

QUICK REFERENCE

AVAILABLE SOON
PHONE FOR DETAILS

TECHNICAL DATA

• Max. Length 6000mm
• Mass 1.74kg/m
• Moment of Inertia (cm^4) Ixx 23.3
  Iyy 6.1
• Section Modulus (cm^3) Wxx 7.8
  Wyy 4.1
MCS Machine Construction System

40 x 40L
0-132-4041

Quick Reference

Technical Data
- Max. Length: 6000mm
- Mass: 1.4kg/m
- Moment of Inertia (cm^4): I_{xx} 8.2, I_{yy} 8.2
- Section Modulus (cm^3): W_{xx} 4.1, W_{yy} 4.1

40 x 40
0-132-4040

Quick Reference

Technical Data
- Max. Length: 6000mm
- Mass: 1.9kg/m
- Moment of Inertia (cm^4): I_{xx} 11.1, I_{yy} 11.1
- Section Modulus (cm^3): W_{xx} 5.6, W_{yy} 5.6
ALUMINIUM PROFILES

40 x 80
0-132-4080

Quick Reference

M12

Technical Data
- Max. Length: 6000mm
- Mass: 2.62kg/m
- Moment of Inertia (cm^4): Ixx 61.2, Iyy 17.0
- Section Modulus (cm^3): Wxx 15.3, Wyy 8.5

AVAILABLE SOON
PHONE FOR DETAILS

40 LR
0-132-4000

Quick Reference

M12

Technical Data
- Max. Length: 6000mm
- Mass: 1.16kg/m
- Moment of Inertia (cm^4): Ixx 6.0, Iyy 6.0
- Section Modulus (cm^3): Wxx 2.4, Wyy 2.4
**45 x 45L**
0-132-4546

**QUICK REFERENCE**

**TECHNICAL DATA**

- Max. Length: 6000mm
- Mass: 1.5kg/m
- Moment of Inertia (cm$^4$): $I_{xx}$ 10.4, $I_{yy}$ 10.4
- Section Modulus (cm$^3$): $W_{xx}$ 4.6, $W_{yy}$ 4.6

---

**45 x 45**
0-132-4545

**QUICK REFERENCE**

**TECHNICAL DATA**

- Max. Length: 6000mm
- Mass: 1.9kg/m
- Moment of Inertia (cm$^4$): $I_{xx}$ 13.8, $I_{yy}$ 13.8
- Section Modulus (cm$^3$): $W_{xx}$ 6.1, $W_{yy}$ 6.1
**Aluminium Profiles**

**45 x 60L**

**0-132-4561**

**Quick Reference**

**Technical Data**

- Max. Length: 6000mm
- Mass: 2.06kg/m
- Moment of Inertia (cm^4):
  - Ixx: 24.0
  - Iyy: 15.1
- Section Modulus (cm^3):
  - Wxx: 8.0
  - Wyy: 6.7

**Available Soon**

Phone for details.

---

**45 x 60**

**0-132-4560**

**Quick Reference**

**Technical Data**

- Max. Length: 6000mm
- Mass: 2.8kg/m
- Moment of Inertia (cm^4):
  - Ixx: 34.2
  - Iyy: 21.6
- Section Modulus (cm^3):
  - Wxx: 11.4
  - Wyy: 9.6

---
**MCS** Machine Construction System

**ALUMINIUM PROFILES**

### 45 x 90L

**0-132-4591**

- Max. Length: 6000mm
- Mass: 3.08kg/m
- Moment of Inertia (cm⁴): 
  - Iₓₓ: 92.6
  - Iᵧᵧ: 22.1
- Section Modulus (cm³): 
  - Wₓₓ: 20.6
  - Wᵧᵧ: 9.8

**AVAILABLE SOON**

**QUICK REFERENCE**

- Ø10

### 45 x 90

**0-132-4590**

- Max. Length: 6000mm
- Mass: 3.8kg/m
- Moment of Inertia (cm⁴): 
  - Iₓₓ: 121.8
  - Iᵧᵧ: 32.0
- Section Modulus (cm³): 
  - Wₓₓ: 27.1
  - Wᵧᵧ: 14.2

**TECHNICAL DATA**

**Quick Reference**

- Ø10

**AVAILABLE SOON**

**PHONE FOR DETAILS**
**45 LR**  
0-132-4500

**TECHNICAL DATA**

- Max. Length: 6000mm
- Mass: 1.29kg/m
- Moment of Inertia (cm^4):  
  - I_{xx}: 7.6
  - I_{yy}: 7.6
- Section Modulus (cm^3):  
  - W_{xx}: 3.4
  - W_{yy}: 3.4

**60 x 60L**  
0-132-6061

**TECHNICAL DATA**

- Max. Length: 6000mm
- Mass: 2.88kg/m
- Moment of Inertia (cm^4):  
  - I_{xx}: 37.0
  - I_{yy}: 37.0
- Section Modulus (cm^3):  
  - W_{xx}: 12.3
  - W_{yy}: 12.3
60 x 60
0-132-6060

**Quick Reference**
- Ø10

**Technical Data**
- Max. Length: 6000mm
- Mass: 3.6kg/m
- Moment of Inertia (cm^4): I_{xx} 52.7, I_{yy} 52.7
- Section Modulus (cm^3): W_{xx} 17.6, W_{yy} 17.6

80 x 80L
0-132-8081

**Quick Reference**
- Ø10

**Technical Data**
- Max. Length: 6000mm
- Mass: 4.05kg/m
- Moment of Inertia (cm^4): I_{xx} 110.4, I_{yy} 110.4
- Section Modulus (cm^3): W_{xx} 27.6, W_{yy} 27.6
90 x 90L
0-132-9091

**Quick Reference**

- Max. Length: 4000mm
- Mass: 6.7kg/m
- Moment of Inertia (cm^4)
  - Ixx: 211.7
  - Iyy: 211.7
- Section Modulus (cm^3)
  - Wxx: 47.0
  - Wyy: 47.0

**Technical Data**

- Max. Length: 4000mm
- Mass: 9.9kg/m
- Moment of Inertia (cm^4)
  - Ixx: 304.6
  - Iyy: 304.6
- Section Modulus (cm^3)
  - Wxx: 67.9
  - Wyy: 67.9

90 x 90
0-132-9090

**Quick Reference**
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 since they have the same external and slot dimensions.

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.

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 6000mm lengths - see the individual profile section for details.
ANGLE PROFILE
0-133-0035

Generally used as sliding tray holder, in conjunction with Box Stop, End Caps and Angle Brackets.

Quick Reference

M5x15L C/Sunk Bolt

Technical Data

- Material: Al6063-T5
- Finish: Clear Anodized
- Max. Length: 6000mm
- Mass: 1.4kg/m

Figures:
1-242-0029
1-242-1041
1-243-0047
1-243-0046
0-133-0035
GUIDE PROFILE
0-133-0031

Allows incorporation of sliding doors and panels. Use in conjunction with Slide Profile and Support Profile.

Technical Data:
- Material: Al6063-T5
- Finish: Clear Anodized
- Max. Length: 6000mm
- Mass: 1.9kg/m

Assembly Examples:
1. Guide Profile
2. 45x45 Profile
3. Interior Bracket
4. T-Bolt
5. Bracket
6. Flange Nut
FRAME PROFILE 0-133-0034

PANEL SIZE
1.5 mm thickness
Add 16 mm to B and D dimension
3 mm thickness
Add 10 mm to B and D dimension
5 mm thickness
Add 6 mm to B and D dimension

TECHNICAL DATA
• Material: Al6063-T5
• Finish: Clear Anodized
• Max. Length: 6000mm
• Mass: 0.99kg/m

QUICK REFERENCE

Corner Piece  Frame Profile
SLOT PROFILE(A)  
1-243-0035

QUICK REFERENCE

TECHNICAL DATA
- Material: Al6063-T5
- Finish: Clear Anodized
- Max. Length: 6000mm
- Mass: 0.24kg/m

SLOT PROFILE(B)  
0-133-0030

Use when assembling a wire cage or sharp panel. Fits into size 10 T-slots.

QUICK REFERENCE

TECHNICAL DATA
- Material: Al6063-T5
- Finish: Clear Anodized
- Max. Length: 6000mm
- Mass: 0.24kg/m
PANEL PROFILE 0-133-0041

To create a framed 5 mm panel

QUICK REFERENCE

TECHNICAL DATA

- Material: Al6063-T5
- Finish: Clear Anodized
- Max. Length: 4000mm
- Mass: 0.08kg/m

SUSPENSION PROFILE 0-133-0036

QUICK REFERENCE

TECHNICAL DATA

- Material: Al6063-T5
- Finish: Clear Anodized
- Max. Length: 4000mm
- Mass: 0.5kg/m
**CONDUIT DUCT 40 x 45**

**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.

**TECHNICAL DATA**
- Material: Al6063-T5
- Finish: Clear Anodized
- Max. Length: 4000mm
- Mass: 0.59kg/m

**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.

**TECHNICAL DATA**
- Material: Al6063-T5
- Finish: Clear Anodized
- Max. Length: 6000mm
- Mass: 2.4kg/m
Conduit Duct 85 x 100

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.

Quick Reference

Technical Data
- Material: Al6063-T5
- Finish: Clear Anodized
- Max. Length: 6000mm
- Mass: 2.9kg/m

Conduit Duct 180 x 120

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.

Quick Reference

Technical Data
- Material: Al6063-T5
- Finish: Clear Anodized
- Max. Length: 6000mm
- Mass: 5.8kg/m
All connections in the MCS System are screwed or bolted together, so assembly is flexible and extremely fast. Conversions and extensions may be made at any time, and frames can easily be dismantled for re-use of components and profiles at a later date.

Profile connection can be achieved either with or without end machining, according to requirements. Interior brackets for hidden connection are available, though it should be noted these are not suitable for high load applications - in these circumstances end machining or the brackets shown on pages 25 – 28 should be specified.

A comprehensive cutting, drilling, machining and tapping service is available from Hepco, for customers choosing connections which require this. Turnaround on all end machining is fast and efficient, with all joints clearly marked up for simple assembly by the customer if necessary.
PROFILE CONNECTIONS

**T-BOLT & FLANGE NUT**

**T-BOLT**
- 1-242-1009 M8 x 25L
- 1-242-1000 M8 x 30L
- 1-242-1006 M8 x 45L

**FLANGE NUT**
- 1-242-1101 M8 x 12 A/F
- 1-242-1100 M8 x 14 A/F

---

**TECHNICAL DATA**

- Material: EN3B
- Finish: Zinc Plated
- Mass:
  - 1-242-1009: 0.01kg/ea
  - 1-242-1000: 0.01kg/ea
  - 1-242-1006: 0.02kg/ea

**Quick Reference**

Max. Plate Thickness using the following T-Bolts and Flange Nuts:

- M8 x 12 A/F, M8 x 14 A/F*
- M8 x 25L: 5.5mm/3.5mm
- M8 x 30L: 10.5mm/8.5mm
- M8 x 45L: 25.5mm/23.5mm

*Tolerance -0/+2mm is due to differing T-Slot dimensions between profile sizes

---

**LOZENGE NUT**

- 1-243-2235 M3 (slot 6)
- 1-243-2236 M4 (slot 6)

---

**TECHNICAL DATA**

- Material: EN3B
- Finish: Zinc Plated

**Quick Reference**
**Profile Connections**

### T-NUT

<table>
<thead>
<tr>
<th>Code</th>
<th>Size (Slot)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-242-1024</td>
<td>M4 (slot 8)</td>
</tr>
<tr>
<td>1-242-1025</td>
<td>M5 (slot 8)</td>
</tr>
<tr>
<td>1-242-1026</td>
<td>M6 (slot 8)</td>
</tr>
<tr>
<td>1-242-1029</td>
<td>M4 (slot 10)</td>
</tr>
<tr>
<td>1-242-1030</td>
<td>M5 (slot 10)</td>
</tr>
<tr>
<td>1-242-1001</td>
<td>M6 (slot 10)</td>
</tr>
<tr>
<td>1-242-1002</td>
<td>M8 (slot 10)</td>
</tr>
</tbody>
</table>

**Quick Reference**

- **Material**: EN3B
- **Finish**: Zinc Plated
- **Mass**:
  - 1-242-1024: 0.004 kg/ea
  - 1-242-1025: 0.004 kg/ea
  - 1-242-1026: 0.004 kg/ea
  - 1-242-1029: 0.004 kg/ea
  - 1-242-1030: 0.004 kg/ea
  - 1-242-1001: 0.004 kg/ea
  - 1-242-1002: 0.004 kg/ea

### ANGLED NUT

<table>
<thead>
<tr>
<th>Code</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-242-1007</td>
<td>M4</td>
</tr>
<tr>
<td>1-242-1008</td>
<td>M5</td>
</tr>
</tbody>
</table>

**Quick Reference**

- **Material**: EN3B
- **Finish**: Zinc Plated
- **2 x 45° CHAMFER**
- **Material**: EN3B
- **Finish**: Zinc Plated
**BRACKET 17 x 18**

1-242-1718

Note:
Customer to supply 2 of M4 x 10, 10Nm cap head screw and use with M4 Lozenge Nut 1-243-2236

**TECHNICAL DATA**
- Material: Aluminium
- Finish: None
- Mass: 0.02kg/ea

**AVAILABLE SOON**
PHONE FOR DETAILS

---

**BRACKET 20 x 28**

1-242-2028

Note:
Customer to supply 2 of M6 x 10, 10 Nm cap head screw and use with T-Nut 1-242-1026

**TECHNICAL DATA**
- Material: Aluminium
- Finish: None
- Mass: 0.02kg/ea
BRACKET 36 x 36
1-242-3636

Note:
Use with T-Bolt M8 x 30L 1-242-1000 and Flange Nut M8 x 12 A/F 1-242-1101

TECHNICAL DATA
• Material: Aluminium
• Finish: None
• Mass: 0.04kg/ea

BRACKET 42 x 43
1-242-4243

Note:
Use with T-Bolt M8 x 30L 1-242-1000 and Flange Nut M8 x 12 A/F 1-242-1101

TECHNICAL DATA
• Material: Aluminium
• Finish: None
• Mass: 0.06kg/ea
**BRACKET 42 x 88**  
1-242-4288

Note:
Use with T-Bolt M8 x 30L 1-242-1000 and Flange Nut M8 x 12 A/F 1-242-1101

**QUICK REFERENCE**

**TECHNICAL DATA**
- Material: Aluminium
- Finish: None
- Mass: 0.15kg/ea

**AVAILABLE SOON**
PHONE FOR DETAILS

---

**BRACKET 57 x 57**  
1-242-5757

Note:
60 x 60 profile
Use with T-Bolt M8 x 30L 1-242-1000 and Flange Nut M8 x 12 A/F 1-242-1101

30 x 60 profile
Customer to supply 2 of M6 x 10, 10Nm cap head screw and use with T-Nut 1-242-1026

**QUICK REFERENCE**

**TECHNICAL DATA**
- Material: Aluminium
- Finish: None
- Mass: 0.12kg/ea
**BRACKET 75 x 75**

1-242-7575

Note:
Use with T-Bolt M8 x 30L 1-242-1000 and Flange Nut M8 x 12 A/F 1-242-1101

**TECHNICAL DATA**
- Material: Aluminium
- Finish: None
- Mass: 0.25kg/ea

**QUICK REFERENCE**
- Available Soon
- Phone for Details

**BRACKET 88 x 88**

1-242-8888

Note:
Use with T-Bolt M8 x 30L 1-242-1000 and Flange Nut M8 x 12 A/F 1-242-1101

**TECHNICAL DATA**
- Material: Aluminium
- Finish: None
- Mass: 0.30kg/ea

**QUICK REFERENCE**
- Available Soon
- Phone for Details
INTERIOR BRACKET (A)

1-242-1039

2x M8 SET SCREW (supplied)

2-M8 TAP

9.8

3

9

38

26

22

32

9

3

19.5

38

TECHNICAL DATA

- Material: Zinc Diecast
- Finish: None
- Mass: 0.06kg/ea

QUICK REFERENCE

INTERIOR BRACKET (B)

1-242-1040

2x M8 SET SCREW (supplied)

2-M8 TAP

9.8

3

9

38

26

22

32

9

3

19.5

38

TECHNICAL DATA

- Material: Zinc Diecast
- Finish: None
- Mass: 0.06kg/ea

QUICK REFERENCE
**CROSS CONNECTOR**

**1-242-1003**

Order with:
- 1 of M8 x 12 A/F 1-242-1101
- 1 of T-Bolt M8 x 45 1-242-1006

**TECHNICAL DATA**
- Material: EN3B
- Finish: Zinc Plated
- Mass: 0.03kg/ea

**BOLT CONNECTOR SET**

**1-242-1004 S** 20 x 39L

Use with 40 x 40 and 40 x 80 profile

**1-242-2021 S** 20 x 59L

Use with 60 x 60 profile

Supplied complete with fixing screws and T-Nuts

**TECHNICAL DATA**
- Material: EN3B
- Finish: Zinc Plated
- Mass: 39L 0.05kg/ea, 59L 0.10kg/ea
**CONNECTOR LINK SET**

**1-242-1020 S**
Set comprises two connector links and is supplied with fixing screws.

**QUICK REFERENCE**

- **TECHNICAL DATA**
  - Material: EN3B
  - Finish: Zinc Plated
  - Mass: 0.19kg/ea

**SLOT BLOCK**

**1-242-1031** M5 (SLOT 10)
**1-242-1013** M6 (SLOT 10)
**1-242-1032** M8 (SLOT 10)

**QUICK REFERENCE**

- **TECHNICAL DATA**
  - Material: EN3B
  - Finish: Zinc Plated
  - Mass:
    - 1-242-1031: 0.02kg/ea
    - 1-242-1013: 0.02kg/ea
    - 1-242-1032: 0.02kg/ea
**CORNER PIECE SET**

**1-242-1017 S**
Supplied with fixing screws
Use with Frame Profile

**QUICK REFERENCE**

**TECHNICAL DATA**

- **Material**: Aluminium
- **Finish**: None
- **Mass**: 0.08kg/ea

---

![Diagram of the corner piece set](image)

Dimensions:
- 22.5 x 22.5 x 22.5
- 4-ø5 thru (C/SUNK ø10x90°)
- 16 x 27 x 45

**Machine Construction System**
**Profile Connections**

---

**Profile Connections**

---
**ANGLE BRACKET**

**1-242-1018 S**

Supplied as a set with fixing screws and T-Nuts

![Diagram of angle bracket with dimensions and markings]

**QUICK REFERENCE**

![Image of angle bracket]

**TECHNICAL DATA**

- Material: Aluminium
- Finish: None
- Mass: 0.10kg/ea

2-ø8.5 thru (C/SUNK ø16x90°)
**PROFILE CONNECTIONS**

**COVER BRACKET**

**0-243-2235**

Allows simple assembly of frames and sheet material.
Saves having to use separate brackets and sheet holders.
Customer to supply 2 of M6 10Nm Cap Head Screw and M4 fixing screws to suit sheet material.

**QUICK REFERENCE**

**TECHNICAL DATA**

- Material: Al6063-T5
- Finish: Clear Anodised
- Mass: 0.01kg/ea

**CONNECTION SCREW**

**1-242-1033** M6 x 25
**1-242-1034** M8 x 30
**1-242-1005** M12 x 30

**QUICK REFERENCE**

**TECHNICAL DATA**

- Material: EN30
- Finish: Black Oxide
END CONNECTOR SET

1-242-4547 S
Supplied in two parts with fixing screws
Location tabs may be easily removed where required

QUICK REFERENCE

TECHNICAL DATA
- Material: Aluminium
- Finish: None
- Mass: A 0.22kg/ea
- B 0.23kg/ea

Supplied in two parts with fixing screws
Location tabs may be easily removed where required

1-242-1001
M12 Bolt
2 x M6 Bolt

4 x M6 Bolt
4 x M6 Nut
2 x M12 Bolt
**EXTERIOR ANGLE BRACKET**

**1-242-3030 30 x 30**
Customer to supply 2 of M8 10Nm Button Head or Cap Head fixing screws.

**QUICK REFERENCE**

- **Dimensions**: 30 x 30

**TECHNICAL DATA**

- **Material**: Aluminium
- **Finish**: None
- **Mass**: 0.17kg/ea

![Diagram of exterior angle bracket with dimensions and symbols]
KNUCKLE JOINT

Supplied as a set with all fixings required.

**QUICK REFERENCE**

**TECHNICAL DATA**
- Material: Aluminium
- Finish: None
- Mass:
  - 1-242-4548 - 0.54kg/set
  - 1-242-4570 - 0.62kg/set

1-242-4548
For use with 45 x 45

1-242-4570
For use with 45 x 60
A useful range of accessories for the MCS System provides attractive 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 Frame Building System - details of these are on pages 48 and 49. Castors for more specialist uses can be easily sourced by Hepco - ask us for details if the standard range is not suitable for a particular application.
END CAP

1-243-0045
For use with Suspension Profile. Push fit.

Quick Reference

Technical Data
- Material: ABS Plastic
- Finish: Black
- Mass: 0.002kg/ea

END CAP

1-243-0046 Left hand fitting
1-243-0047 Right hand fitting
For use with Angle Profile.
Customer to supply 2 of M4 Countersunk head self-tapping screw.

Quick Reference

Technical Data
- Material: ABS Plastic
- Finish: Black
- Mass: 0.004kg/ea
END CAP

1-242-1037
For use with Structural Profile Sections. Push fit.

<table>
<thead>
<tr>
<th>L1 x L2</th>
<th>Part No.</th>
<th>L1 x L2</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 x 20</td>
<td>1-243-4049</td>
<td>45 x 45</td>
<td>1-243-4042</td>
</tr>
<tr>
<td>20 x 40</td>
<td>1-243-4050</td>
<td>45 x 60</td>
<td>1-243-4043</td>
</tr>
<tr>
<td>30 x 30</td>
<td>1-243-4047</td>
<td>45 x 90</td>
<td>1-243-4044</td>
</tr>
<tr>
<td>30 x 60</td>
<td>1-243-4051</td>
<td>45 LR</td>
<td>1-243-4054</td>
</tr>
<tr>
<td>40 x 40</td>
<td>1-243-4041</td>
<td>60 x 60</td>
<td>1-243-4045</td>
</tr>
<tr>
<td>40 x 80</td>
<td>1-243-4052</td>
<td>80 x 80</td>
<td>1-243-4055</td>
</tr>
<tr>
<td>40 LR</td>
<td>1-243-4053</td>
<td>90 x 90</td>
<td>1-243-4046</td>
</tr>
</tbody>
</table>

TECHNICAL DATA
- Material: ABS Plastic
- Finish: Black

COVER STRIP

Improves the look of finished frames, protects T-slots from contamination and secures electrical cable. Push fit. Supplied in 3m random lengths.

1-242-1037
For slot size 6

1-242-1038
For slot size 8

1-242-1036
For profile 40 x 40 (0-132-4040)

1-242-1016
For all other slot size 10 profiles

TECHNICAL DATA
- Material: PVC
- Finish: Black
- Length: 3000mm
- Mass: 0.04kg/m
**ACCESSORIES**

**MCS Machine Construction System**

### SUSPENDED SLIDE

**1-242-1014**

Fits into size 10 T-slots to suspend hand tools above a work table. Generally used with Snap Hook - see below.

**Quick Reference**

![Suspended Slide Diagram]

**Technical Data**

- **Material**: Nylon
- **Finish**: Black
- **Mass**: 0.01kg/ea

### SNAP HOOK

**1-242-1015**

Used with Suspended Slide - see above.

**Quick Reference**

![Snap Hook Diagram]

**Technical Data**

- **Material**: EN3B
- **Finish**: Zinc Plated
- **Mass**: 0.03kg/ea
FOOT PLATE 45 X 90

1-243-0112
Allows assembly of Foot on the 45 x 90 profile, which has no central fixing hole.

- Material: EN32
- Finish: Black Oxide
- Mass: 0.50kg/ea

FOOT PLATE 90 X 90

1-243-0113
Allows assembly of Foot on the 90 x 90L profile, which has no central fixing hole.

- Material: EN32
- Finish: Black Oxide
- Mass: 1.0kg/ea
FOOT

Adjustable height with ±15˚ of movement allows for uneven floor surfaces. Requires tapping of the profile end.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Tap Size</th>
<th>Diameter</th>
<th>Length</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-243-0030</td>
<td>M8</td>
<td>40</td>
<td>100</td>
<td>0.04kg/ea.</td>
</tr>
<tr>
<td>1-243-0050</td>
<td>M12</td>
<td>60</td>
<td>150</td>
<td>0.17kg/ea.</td>
</tr>
<tr>
<td>1-243-0051</td>
<td>M12</td>
<td>100</td>
<td>150</td>
<td>0.23kg/ea.</td>
</tr>
<tr>
<td>1-243-0040</td>
<td>M16</td>
<td>60</td>
<td>150</td>
<td>0.28kg/ea.</td>
</tr>
<tr>
<td>1-243-0041</td>
<td>M16</td>
<td>100</td>
<td>150</td>
<td>0.33kg/ea.</td>
</tr>
</tbody>
</table>

TECHNICAL DATA
- Material: ABS and Steel

FOUNDATION BRACKET

1-242-1019

Rigidly fixes a frame to the floor - use in conjunction with Foot to allow levelling before fixing.

Order with:
- 2 of M8 x 25L T-Bolt 1-242-1009
- 2 of M8 x 14 A/F Flange Nut 1-242-1100

Customer to supply floor fixing bolt.

TECHNICAL DATA
- Material: EN32
- Finish: Black Oxide
- Mass: 0.44kg/ea
HANDLE

1-243-0033
For profiles with slot size 8 and 10
For slot 8 profile, order with: 2 of M6 T-Nut 1-242-1026
For slot 10 profile, order with: 2 of M8 T-Nut 1-242-1002
Customer to supply 2 of M6 or M8 10Nm cap head fixing screw and suitable washers.

Technical Data
- Material: ABS Plastic
- Finish: Black
- Mass: 0.04kg/ea

Box Stop

1-242-1041
For use with Angle Profile.
Supplied individually or as a set with fixing screws and T-Nut.
Append part no. with an ‘S’ for complete set.

Technical Data
- Material: EN3B
- Finish: Zinc Plated
- Mass: 0.025kg/ea
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**
To hinge size 30 profiles

**1-243-4545**
To hinge size 45 profiles

**1-243-4060**
To hinge a size 30 profile to a size 45 profile

<table>
<thead>
<tr>
<th>Part No.</th>
<th>L</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-243-4048</td>
<td>61</td>
<td>35</td>
<td>17.5</td>
<td>40</td>
<td>6.2</td>
<td>8</td>
</tr>
<tr>
<td>1-243-4545</td>
<td>90</td>
<td>50</td>
<td>25</td>
<td>40</td>
<td>6.2</td>
<td>10</td>
</tr>
<tr>
<td>1-243-4060</td>
<td>74.5</td>
<td>42.5</td>
<td>17.5/25</td>
<td>40</td>
<td>6.2</td>
<td>8/10</td>
</tr>
</tbody>
</table>

**Quick Reference**
- Material: Nylon
- Finish: Black
- Mass: 0.08kg/ea
**SLIDE PROFILE**

**1-133-0032**
Allows glass/plastic panel to slide inside Guide Profile.
Supplied in 3m random length.

**TECHNICAL DATA**
- Material: PVC
- Finish: Black
- Max. Length: 3000mm
- Mass: 0.08kg/m

**QUICK REFERENCE**

**SUPPORT PROFILE**

**1-133-0033**
Acts as support to Slide Profile for glass/plastic panels.
Supplied in 3m random length.

**TECHNICAL DATA**
- Material: PVC
- Finish: Black
- Max. Length: 3000mm
- Mass: 0.1kg/m

**QUICK REFERENCE**
**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.

**TECHNICAL DATA**
- Material: ABS Plastic
- Finish: Black
- Max. Length: 3000mm

**Panel Guide**
Thickness of panel: 5mm

---

**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 the panel to be inserted/removed in situ. Supplied in 3m random length.

**TECHNICAL DATA**
- Material: PVC
- Finish: Black
- Max. Length: 3000mm

**Panel Holder**
Thickness of panel: 5mm
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 opposite.

**C80T** Without Brake

**C80TB** With Brake

**TECHNICAL DATA**

- **Material:**
  - Body: Zinc Plated Steel
  - Wheel: Nylon
  - Tyre: Polyurethane
- **Wheel diameter**: 80mm
- **Load Capacity**: 90kg/ea
- **Mass**:
  - Brake: 0.75kg/ea
  - No Brake: 0.65kg/ea

**QUICK REFERENCE**
CASTORS

Swivel type. Flange plate fixing allows inboard mounting using the 9mm slots provided.

C80F Without Brake

C80FB With Brake

QUICK REFERENCE

TECHNICAL DATA

- Material:
  - Body: Zinc Plated Steel
  - Wheel: Nylon
  - Tyre: Polyurethane
- Wheel diameter: 80mm
- Load Capacity: 90kg/ea
- Mass
  - Brake: 0.77kg/ea
  - No Brake: 0.65kg/ea
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 58 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.
**TECHNICAL SPECIFICATION**

Material Designation: AlMgSi0.5F25  
Material Number: Al6063-T5  
Minimum Tensile strength: 250N/mm²  
0.2% proof Stress: 160N/mm²  
Ductile Yield A5: 10%  
Ductile Yield A10: 8%  
Modulus of Elasticity: 70 000N/mm²  
Brinell Hardness: 75 HB  
Coefficient of Thermal expansion:  
\((-50...+20^\circ C) = 21.8 \times 10^{-6} 1/K\)  
\((+20...+100^\circ C) = 23.8 \times 10^{-6} 1/K\)  
Transversal contraction figure: \(\nu = 0.34\)  
Anodizing process: E6/EV1 Clear  
Thickness of layer: 10 µm  
Hardness: 300 HV  

Section faces are parallel within ±0.1mm  

Straightness of profile – maximum deviation of 0.3mm per 300mm  

Maximum twist is 1.5mm per 2000mm
Note: These deflection calculations can be replaced by referring to ‘Choosing the Correct MCS System profile for your application’ (pages 54 and 55), though results achieved graphically will be more approximate.

Deflection of Profile under Static Point Loading:

\[ d_1 = \frac{F \times L^3}{3E \times I \times 10^4} \]  
(Rigidly fixed one end)

\[ d_2 = \frac{F \times L^3}{48E \times I \times 10^4} \]  
(Simply supported)

\[ d_3 = \frac{F \times L^3}{192E \times I \times 10^4} \]  
(Rigidly fixed both ends)

Deflection of profile under it's own weight (referring to the diagrams above):

\[ d_1 = \frac{9.81 \times P \times L^4}{8E \times I \times 10^7} \]

\[ d_2 = \frac{5 \times 9.81 \times P \times L^4}{384E \times I \times 10^7} \]

\[ d_3 = \frac{9.81 \times P \times L^4}{384E \times I \times 10^7} \]

Maximum allowable bending stress (referring to the diagrams above):

\[ \sigma_{max} < 200 \text{N/mm}^2 \]

\[ \sigma_1 = \frac{F \times L}{W \times 10^3} \]

\[ \sigma_2 = \frac{4F \times L}{4W \times 10^3} \]

\[ \sigma_3 = \frac{8F \times L}{8W \times 10^3} \]

**Symbols**

- \( E \) = 70 000N/mm\(^2\) (modulus of elasticity)
- \( L \) = Unsupported Length (mm)
- \( F \) = Load (N)
- \( I \) = Moment of Inertia (cm\(^4\))
- \( D \) = Deflection of profile (mm)
- \( W \) = Section Modulus (cm\(^3\))
- \( P \) = Mass of profile (kg/m)
### MOMENT OF INERTIA, SECTION MODULUS AND MASS OF MCS SYSTEM STRUCTURAL PROFILE SECTIONS

<table>
<thead>
<tr>
<th></th>
<th>Moment of Inertia (cm(^4))</th>
<th>Section Modulus (cm(^3))</th>
<th>Mass (kg/m)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(I_{xx})</td>
<td>(I_{yy})</td>
<td>(W_{xx})</td>
</tr>
<tr>
<td>20 x 20</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>20 x 40</td>
<td>4.5</td>
<td>1.2</td>
<td>2.2</td>
</tr>
<tr>
<td>30 x 30</td>
<td>3.4</td>
<td>3.4</td>
<td>2.2</td>
</tr>
<tr>
<td>30 x 60</td>
<td>23.3</td>
<td>6.1</td>
<td>7.8</td>
</tr>
<tr>
<td>40 x 40L</td>
<td>8.2</td>
<td>8.2</td>
<td>4.1</td>
</tr>
<tr>
<td>40 x 40</td>
<td>11.1</td>
<td>11.1</td>
<td>5.6</td>
</tr>
<tr>
<td>40 x 80</td>
<td>61.2</td>
<td>17.0</td>
<td>15.3</td>
</tr>
<tr>
<td>40 LR</td>
<td>6.0</td>
<td>6.0</td>
<td>2.4</td>
</tr>
<tr>
<td>45 x 45L</td>
<td>10.4</td>
<td>10.4</td>
<td>4.6</td>
</tr>
<tr>
<td>45 x 45</td>
<td>13.8</td>
<td>13.8</td>
<td>6.1</td>
</tr>
<tr>
<td>45 x 60L</td>
<td>24.0</td>
<td>15.1</td>
<td>8.0</td>
</tr>
<tr>
<td>45 x 60</td>
<td>34.2</td>
<td>21.6</td>
<td>11.4</td>
</tr>
<tr>
<td>45 x 90L</td>
<td>92.6</td>
<td>22.1</td>
<td>20.6</td>
</tr>
<tr>
<td>45 LR</td>
<td>121.8</td>
<td>32.0</td>
<td>27.1</td>
</tr>
<tr>
<td>45 x 90</td>
<td>7.6</td>
<td>7.6</td>
<td>3.4</td>
</tr>
<tr>
<td>60 x 60L</td>
<td>37.0</td>
<td>37.0</td>
<td>12.3</td>
</tr>
<tr>
<td>60 x 60</td>
<td>52.7</td>
<td>52.7</td>
<td>17.6</td>
</tr>
<tr>
<td>80 x 80L</td>
<td>110.4</td>
<td>110.4</td>
<td>27.6</td>
</tr>
<tr>
<td>90 x 90L</td>
<td>211.7</td>
<td>211.7</td>
<td>47.0</td>
</tr>
<tr>
<td>90 x 90</td>
<td>304.6</td>
<td>304.6</td>
<td>67.9</td>
</tr>
</tbody>
</table>
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 opposite is a graphic representation of the deflection calculations on page 52. It will be necessary to differentiate between the three loading types:

1. Cantilever load (rigidly fixed at one end)
2. Simply supported
3. Rigidly fixed both ends

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
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.
### PROFILE CONNECTION CARRYING CAPACITY

<table>
<thead>
<tr>
<th>Profile Connections</th>
<th>Direct Load N</th>
<th>Offset Load (LxF) Nm</th>
<th>Twisting Load Nm</th>
<th>Joint Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bracket 17x18</td>
<td>800</td>
<td>50</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Bracket 20x28</td>
<td>1200</td>
<td>25</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Bracket 36x36</td>
<td>1800</td>
<td>150</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Bracket 42x43</td>
<td>2000</td>
<td>90</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Bracket 42x88</td>
<td>4000</td>
<td>180</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Bracket 57x57</td>
<td>4000</td>
<td>400</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Bracket 75x75</td>
<td>4000</td>
<td>300</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Bracket 88x88</td>
<td>7000</td>
<td>700</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Angle Bracket</td>
<td>2000</td>
<td>100</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Bracket 17x18</td>
<td>800</td>
<td>100</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Bracket 20x28</td>
<td>1200</td>
<td>70</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Bracket 36x36</td>
<td>1800</td>
<td>300</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Bracket 42x43</td>
<td>2000</td>
<td>180</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Bracket 42x88</td>
<td>4000</td>
<td>360</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Bracket 57x57</td>
<td>4000</td>
<td>800</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Bracket 75x75</td>
<td>4000</td>
<td>600</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Bracket 88x88</td>
<td>7000</td>
<td>1400</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Angle Bracket</td>
<td>2000</td>
<td>80</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>
## Technical Details

<table>
<thead>
<tr>
<th>Profile Connections</th>
<th>Direct Load N</th>
<th>Offset Load (LxF) Nm</th>
<th>Twisting Load Nm</th>
<th>Joint Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interior Bracket</td>
<td>800</td>
<td>80</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Interior Bracket</td>
<td>800</td>
<td>8</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Bolt Connector 20x39L</td>
<td>4000</td>
<td>400</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Bolt Connector 20x59L</td>
<td>4000</td>
<td>600</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Connection Screw M6x25</td>
<td>500</td>
<td>20</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Connection Screw M8x30</td>
<td>1500</td>
<td>80</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Connection Screw M12x30</td>
<td>3000</td>
<td>200</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Cross Connector</td>
<td>2000</td>
<td>250</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Corner Piece</td>
<td>800</td>
<td>30</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Cover Bracket</td>
<td>1000</td>
<td>50</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>End Connector Set</td>
<td>3000</td>
<td>200</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Exterior Bracket 30x30</td>
<td>150</td>
<td>70</td>
<td>8</td>
<td>–</td>
</tr>
<tr>
<td>Knuckle Joint 45x45</td>
<td>3000</td>
<td>200</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Knuckle Joint 45x60</td>
<td>3000</td>
<td>200</td>
<td>50</td>
<td></td>
</tr>
</tbody>
</table>
### CONNECTION CROSS REFERENCE CHART

<table>
<thead>
<tr>
<th></th>
<th>Angle Brackets</th>
<th>Interior Bracket</th>
<th>Cross Connector</th>
<th>Bolt Connector</th>
<th>Connection Screw</th>
<th>End Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexibility of Usage</td>
<td>*****</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>***</td>
<td>*</td>
</tr>
<tr>
<td>Adjustability</td>
<td>*****</td>
<td>***</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Frame Stiffness</td>
<td>*****</td>
<td>**</td>
<td>**</td>
<td>*****</td>
<td>*****</td>
<td>*****</td>
</tr>
<tr>
<td>Vibration Resistance</td>
<td>**</td>
<td>*</td>
<td>*****</td>
<td>*****</td>
<td>*****</td>
<td>*****</td>
</tr>
<tr>
<td>Space Requirement</td>
<td>**</td>
<td>*****</td>
<td>*****</td>
<td>*****</td>
<td>*****</td>
<td>*****</td>
</tr>
<tr>
<td>Tolerance of Inaccuracy</td>
<td>*****</td>
<td>*****</td>
<td>**</td>
<td>*</td>
<td>****</td>
<td>***</td>
</tr>
<tr>
<td>Cost Effectiveness</td>
<td>*****</td>
<td>*****</td>
<td>***</td>
<td>**</td>
<td>*****</td>
<td>*</td>
</tr>
<tr>
<td>Aesthetic Finish</td>
<td>*</td>
<td>*****</td>
<td>**</td>
<td>*****</td>
<td>*****</td>
<td>***</td>
</tr>
</tbody>
</table>

| Score | = Highest/Best | * = 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.

- Always support the joint when profiles are butt-fastened.
The following machining can be carried out by Hepco on fast turnaround – quotations on request (supply profile part and figure no.).

### FOOT

**Profile**
- 0-132-3030
- 0-132-4040
- 0-132-4041
- 0-132-4545
- 0-132-4546
- 0-132-6060
- 0-132-9090

**Profile End Tapping**
- Fig 1

### CONNECTION SCREW

**Profile**
- 0-132-2020
- 0-132-3030
- 0-132-4040
- 0-132-4041
- 0-132-4545
- 0-132-4546
- 0-132-6060

**Access Hole**
- Fig 2

**Profile End Tapping**
- Fig 3

### BOLT CONNECTOR

**Clearance Hole**
- Fig 4

### CROSS CONNECTOR

**Clearance Slot**
- Fig 5
MCS System aluminium profiles are available fitted with Hepco Linear Slide Systems as complete ready-to-install units. The proven Hepco ‘V’ slide principle with hardened one piece steel slideway, is the ideal choice for motion guidance in frame building systems.

**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
- High rigidity

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 support their moving components. Alternatively, they may select individual parts from the relevant Hepco catalogue and construct their own special Carriage Plate.

Note: For additional Slide Sections & Component Mounting options, please request Hepco’s NEW GV3 Catalogue.
Customers may choose from the Hepco Generation II Precision Slide System,

...the high precision Hepco SL2 Stainless Steel Based Slide System,

...or the low cost, lower capacity Hepco CM Commercial Slide System which is suitable for many applications.

Basic detail and ordering information is provided on the following six pages but customers are requested to consult the relevant Hepco catalogue for comprehensive details and load/life information.
HEPCO GENERATION II PRECISION SLIDE SYSTEM

ORDERING DETAILS

Profile (40x40) - L2200 - G50 / AU - NM44 - 1860 - 1C x 175 - (NS) - (CS)
- Cap Seals (Optional)
- Nitrile Sealed Bearings (Optional)
- 1C= 1 x Carriage with Bearing Assemblies
- 175 = Carriage Length 'F' in mm
- Slide length 'H' in mm
- Slide section Part No.

Notes:
1. Hepco Carriages for S2, M60 and M3 Slide sections are available to a slightly different design and can be supplied to special order on a short delivery time.

2. Slide lengths are available to customer requirements up to 4020mm. Unlimited lengths can be achieved by butting – please specify when ordering.

3. See Hepco Generation 2 catalogue for comprehensive details and other components available. In many circumstances it is possible to "mix and match" between Slides and Bearing Assemblies to achieve other system sizes. Please consult Hepco for details.
## Profiles With Linear Guides

### Gen II

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Spacing Option</th>
<th>Flat Slide</th>
<th>Profile</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>H (max)</th>
<th>J</th>
<th>K</th>
<th>M</th>
<th>Load (C)</th>
<th>No of Holes x Size</th>
<th>Lubricated</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-132-2020</td>
<td>AU-NS25</td>
<td></td>
<td></td>
<td>80</td>
<td>29</td>
<td>19</td>
<td>20</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>2 x M6 x 1.0</td>
<td>✔</td>
<td>1570</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AU-NS25</td>
<td>80</td>
<td>29</td>
<td>19</td>
<td>30</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>2 x M6 x 1.0</td>
<td>✔</td>
<td>1570</td>
</tr>
<tr>
<td>0-132-3030</td>
<td>AU-S2</td>
<td>25.4</td>
<td>11.4</td>
<td>30</td>
<td>30</td>
<td>110</td>
<td></td>
<td>160</td>
<td>4020</td>
<td>note 1</td>
<td>95</td>
<td>note 1</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AU-NS25</td>
<td>80</td>
<td>29</td>
<td>19</td>
<td>40</td>
<td>40</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>2 x M6 x 1.0</td>
<td>✔</td>
<td>1570</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AU-NS25</td>
<td>80</td>
<td>29</td>
<td>19</td>
<td>45</td>
<td>45</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>2 x M6 x 1.0</td>
<td>✔</td>
<td>1570</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AU-NS25</td>
<td>80</td>
<td>29</td>
<td>19</td>
<td>60</td>
<td>60</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>2 x M6 x 1.0</td>
<td>✔</td>
<td>1570</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AU-NS25</td>
<td>80</td>
<td>29</td>
<td>19</td>
<td>90</td>
<td>90</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>2 x M6 x 1.0</td>
<td>✔</td>
<td>1570</td>
</tr>
<tr>
<td>0-132-4040</td>
<td>AU-S2</td>
<td>25.4</td>
<td>11.4</td>
<td>40</td>
<td>40</td>
<td>110</td>
<td></td>
<td>160</td>
<td>4020</td>
<td>note 1</td>
<td>95</td>
<td>note 1</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AU-NS25</td>
<td>80</td>
<td>29</td>
<td>19</td>
<td>40</td>
<td>40</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>2 x M6 x 1.0</td>
<td>✔</td>
<td>1570</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AU-NS25</td>
<td>80</td>
<td>29</td>
<td>19</td>
<td>45</td>
<td>45</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>2 x M6 x 1.0</td>
<td>✔</td>
<td>1570</td>
</tr>
<tr>
<td>0-132-4546</td>
<td>AU-S2</td>
<td>25.4</td>
<td>11.4</td>
<td>40</td>
<td>40</td>
<td>110</td>
<td></td>
<td>160</td>
<td>4020</td>
<td>note 1</td>
<td>95</td>
<td>note 1</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AU-NS25</td>
<td>80</td>
<td>29</td>
<td>19</td>
<td>40</td>
<td>40</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>2 x M6 x 1.0</td>
<td>✔</td>
<td>1570</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AU-NS25</td>
<td>80</td>
<td>29</td>
<td>19</td>
<td>45</td>
<td>45</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>2 x M6 x 1.0</td>
<td>✔</td>
<td>1570</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AU-NS25</td>
<td>80</td>
<td>29</td>
<td>19</td>
<td>60</td>
<td>60</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>2 x M6 x 1.0</td>
<td>✔</td>
<td>1570</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AU-NS25</td>
<td>80</td>
<td>29</td>
<td>19</td>
<td>90</td>
<td>90</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>2 x M6 x 1.0</td>
<td>✔</td>
<td>1570</td>
</tr>
<tr>
<td>0-132-6061</td>
<td>AU-S2</td>
<td>25.4</td>
<td>11.4</td>
<td>60</td>
<td>60</td>
<td>110</td>
<td></td>
<td>160</td>
<td>4020</td>
<td>note 1</td>
<td>95</td>
<td>note 1</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AU-NS25</td>
<td>80</td>
<td>29</td>
<td>19</td>
<td>40</td>
<td>40</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>2 x M6 x 1.0</td>
<td>✔</td>
<td>1570</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AU-NS25</td>
<td>80</td>
<td>29</td>
<td>19</td>
<td>45</td>
<td>45</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>2 x M6 x 1.0</td>
<td>✔</td>
<td>1570</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AU-NS25</td>
<td>80</td>
<td>29</td>
<td>19</td>
<td>60</td>
<td>60</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>2 x M6 x 1.0</td>
<td>✔</td>
<td>1570</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AU-NS25</td>
<td>80</td>
<td>29</td>
<td>19</td>
<td>90</td>
<td>90</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>2 x M6 x 1.0</td>
<td>✔</td>
<td>1570</td>
</tr>
<tr>
<td>0-132-6061</td>
<td>AU-S2</td>
<td>25.4</td>
<td>11.4</td>
<td>60</td>
<td>60</td>
<td>110</td>
<td></td>
<td>160</td>
<td>4020</td>
<td>note 1</td>
<td>95</td>
<td>note 1</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AU-NS25</td>
<td>80</td>
<td>29</td>
<td>19</td>
<td>40</td>
<td>40</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>2 x M6 x 1.0</td>
<td>✔</td>
<td>1570</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AU-NS25</td>
<td>80</td>
<td>29</td>
<td>19</td>
<td>45</td>
<td>45</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>2 x M6 x 1.0</td>
<td>✔</td>
<td>1570</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AU-NS25</td>
<td>80</td>
<td>29</td>
<td>19</td>
<td>60</td>
<td>60</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>2 x M6 x 1.0</td>
<td>✔</td>
<td>1570</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AU-NS25</td>
<td>80</td>
<td>29</td>
<td>19</td>
<td>90</td>
<td>90</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>2 x M6 x 1.0</td>
<td>✔</td>
<td>1570</td>
</tr>
</tbody>
</table>
HEPCO SL2 STAINLESS STEEL BASED SLIDE SYSTEM

Notes:
1. Slide lengths are available to customer requirements up to 4020mm. Unlimited lengths can be achieved by butting – please specify when ordering.

2. See Hepco SL2 catalogue for comprehensive details and other components available. In many circumstances it is possible to “mix and match” between Slides and Bearing Assemblies to achieve other system sizes. Please consult Hepco for details.
## Profiles with Linear Guides

**SL2**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Profile</th>
<th>Spacer</th>
<th>Flat Slide</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>H max</th>
<th>J</th>
<th>K</th>
<th>M No. of Holes x Size</th>
<th>Cap Seal Option</th>
<th>Lubricator Option</th>
<th>Load (C)</th>
<th>Load (C) Double Row Bearing</th>
<th>Lubricated</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-132-2020</td>
<td>AU-SSNS25</td>
<td>80</td>
<td>30.5</td>
<td>19</td>
<td>20</td>
<td>20</td>
<td>80</td>
<td>120</td>
<td>4020</td>
<td>64</td>
<td>12.5</td>
<td>4 x M6 x 1</td>
<td>×</td>
<td>×</td>
<td>960</td>
<td>1600</td>
<td>3000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6 x M6 x 1</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6 x M6 x 1</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-132-3030</td>
<td>AU-SSNS25</td>
<td>80</td>
<td>30.5</td>
<td>19</td>
<td>30</td>
<td>30</td>
<td>80</td>
<td>130</td>
<td>4020</td>
<td>64</td>
<td>12.5</td>
<td>4 x M6 x 1</td>
<td>×</td>
<td>×</td>
<td>960</td>
<td>1600</td>
<td>3000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6 x M6 x 1</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6 x M6 x 1</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-132-4040</td>
<td>0-132-4041</td>
<td>112</td>
<td>25.4</td>
<td>11.4</td>
<td>30</td>
<td>30</td>
<td>110</td>
<td>160</td>
<td>4020</td>
<td>95</td>
<td>25</td>
<td>4 x M6 x 1</td>
<td>×</td>
<td>×</td>
<td>960</td>
<td>1600</td>
<td>3000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6 x M6 x 1</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6 x M6 x 1</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-132-4545</td>
<td>0-132-4546</td>
<td>116</td>
<td>38.5</td>
<td>24</td>
<td>40</td>
<td>40</td>
<td>125</td>
<td>175</td>
<td>4020</td>
<td>77.5</td>
<td>25</td>
<td>4 x M8 x 1.25</td>
<td>×</td>
<td>×</td>
<td>3000</td>
<td>3600</td>
<td>6000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6 x M8 x 1.25</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6 x M8 x 1.25</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-132-6060</td>
<td>0-132-6061</td>
<td>185</td>
<td>43.6</td>
<td>23.6</td>
<td>45</td>
<td>45</td>
<td>110</td>
<td>160</td>
<td>4020</td>
<td>125</td>
<td>25</td>
<td>4 x M10 x 1.5</td>
<td>×</td>
<td>×</td>
<td>6000</td>
<td>8000</td>
<td>10000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6 x M10 x 1.5</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6 x M10 x 1.5</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Notes:
- **Part Number** refers to the specific model of the guide system.
- **Profile** indicates the type of profile.
- **Spacer** and **Flat Slide** specify the dimensions of the components.
- **A, B, C, D, E, F, H max** are values related to the physical dimensions of the components.
- **J** and **K** are values related to the tolerances or specifications.
- **M No. of Holes x Size** indicates the number of holes and their size.
- **Cap Seal Option** and **Lubricator Option** specify if the components are compatible with cap seals or lubricators.
- **Load (C)** and **Load (C) Double Row Bearing** indicate the load capacities.
- **Lubricated** indicates if the components are lubricated.
CM

HEPCO CM COMMERCIAL SLIDE SYSTEM

ORDERING DETAILS

Profile (40x40) - L2066 - G50 / AU-NC44 - 1886 - 1Cx150 - (CW) - (ETN)

Profile length

Slide position ‘G’

T-Nuts (optional, see Note 3)

Cap Wipers (Optional)

1C = 1 x Carriage with Bearing Assemblies

150 = Carriage Length ‘F’ in mm

Slide length ‘H’

Slide Section Part No.

Notes:
1. Hepco Standard Carriages are not available for C50, C60 or CM76 Slide sections. In these cases customers should construct their own Carriage Plate or request special manufacture by Hepco. Contact Hepco for details.

2. Slide lengths are available to customer requirements up to 4020mm. Unlimited lengths can be achieved by butting – please specify when ordering.

3. Customer fixing holes are provided by T nuts. These are optional and are supplied loose. Please see Hepco CM catalogue for other T nut hole sizes and positions.

4. See Hepco CM catalogue for comprehensive details and other components available. In many circumstances it is possible to “mix and match” between Slides and Bearing Assemblies to achieve other system sizes. Please consult Hepco for details.
### Profiles With Linear Guides

**CM** Machine Construction System

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Profile</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>H max</th>
<th>J</th>
<th>K</th>
<th>M Cap Wiper Option</th>
<th>Load (C) N Lubricated</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-132-2020</td>
<td>AU-NC25</td>
<td>80</td>
<td>32</td>
<td>17</td>
<td>20</td>
<td>20</td>
<td></td>
<td>110</td>
<td>90</td>
<td>47</td>
<td>M6 x 1</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>140</td>
<td>120</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>170</td>
<td>150</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>200</td>
<td>180</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>0-132-3030</td>
<td>AU-NC25</td>
<td>80</td>
<td>32</td>
<td>17</td>
<td>30</td>
<td>30</td>
<td></td>
<td>110</td>
<td>90</td>
<td>47</td>
<td>M6 x 1</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>140</td>
<td>120</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>170</td>
<td>150</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>200</td>
<td>180</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AU-C50</td>
<td>105</td>
<td>9.3</td>
<td>30</td>
<td>30</td>
<td>note 1</td>
<td>4020</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td></td>
<td>940</td>
</tr>
<tr>
<td>0-132-4040</td>
<td>AU-NC25</td>
<td>80</td>
<td>32</td>
<td>17</td>
<td>40</td>
<td>40</td>
<td></td>
<td>110</td>
<td>90</td>
<td>47</td>
<td>M6 x 1</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>140</td>
<td>120</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>170</td>
<td>150</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>200</td>
<td>180</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AU-C50</td>
<td>105</td>
<td>24.3</td>
<td>9.3</td>
<td>30</td>
<td>30</td>
<td>note 1</td>
<td>4020</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AU-C50</td>
<td>132</td>
<td>29.6</td>
<td>11.6</td>
<td>40</td>
<td>40</td>
<td>note 1</td>
<td>4020</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AU-CM76</td>
<td>148</td>
<td>29.6</td>
<td>11.6</td>
<td>40</td>
<td>40</td>
<td>note 1</td>
<td>4020</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>0-132-4545</td>
<td>AU-NC25</td>
<td>80</td>
<td>32</td>
<td>17</td>
<td>45</td>
<td>45</td>
<td></td>
<td>110</td>
<td>90</td>
<td>47</td>
<td>M6 x 1</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>140</td>
<td>120</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>170</td>
<td>150</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>200</td>
<td>180</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AU-CM76</td>
<td>148</td>
<td>29.6</td>
<td>11.6</td>
<td>45</td>
<td>45</td>
<td>note 1</td>
<td>4020</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>0-132-6060</td>
<td>AU-NC25</td>
<td>80</td>
<td>32</td>
<td>17</td>
<td>60</td>
<td>60</td>
<td></td>
<td>110</td>
<td>90</td>
<td>47</td>
<td>M6 x 1</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>140</td>
<td>120</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>170</td>
<td>150</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>200</td>
<td>180</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AU-CM76</td>
<td>148</td>
<td>29.6</td>
<td>11.6</td>
<td>60</td>
<td>60</td>
<td>note 1</td>
<td>4020</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>0-132-8090</td>
<td>AU-NC25</td>
<td>80</td>
<td>32</td>
<td>17</td>
<td>90</td>
<td>90</td>
<td></td>
<td>110</td>
<td>90</td>
<td>47</td>
<td>M6 x 1</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>140</td>
<td>120</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>170</td>
<td>150</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>200</td>
<td>180</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AU-CM76</td>
<td>148</td>
<td>29.6</td>
<td>11.6</td>
<td>90</td>
<td>90</td>
<td>note 1</td>
<td>4020</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>
## Description | Part Number | Page
--- | --- | ---
20x20 Profile | 0-132-2020 | 4
20x40 Profile | 0-132-2040 | 4
30x30 Profile | 0-132-3030 | 5
30x60 Profile | 0-132-3060 | 5
40x40 Profile | 0-132-4040 | 6
40x40L Profile | 0-132-4041 | 6
40x60 Profile | 0-132-4060 | 7
45x45 Profile | 0-132-4545 | 7
45x45L Profile | 0-132-4546 | 8
45x60 Profile | 0-132-4560 | 9
45x60L Profile | 0-132-4561 | 9
45x90 Profile | 0-132-4590 | 10
45x90L Profile | 0-132-4591 | 10
45LR Profile | 0-132-4500 | 11
60x60 Profile | 0-132-6060 | 12
60x60L Profile | 0-132-6061 | 11
80x80 Profile | 0-132-8080 | 12
90x90 Profile | 0-132-9090 | 13
90x90L Profile | 0-132-9091 | 13
Accessories Introduction | 38
Aluminium Profile Technical Specification | 51
Angle Bracket | 1-242-1018 S | 33
Angle Profile | 0-133-0035 | 15
Application Exams | 2
Assembly Hints | 58
Bolt Connector Set 40 | 1-242-1004 S | 30
Bolt Connector Set 60 | 1-242-1021 S | 30
Box Stop | 1-242-1041 | 44
Bracket 17x18 | 1-242-1718 | 25
Bracket 20x20 | 1-242-2028 | 25
Bracket 38x36 | 1-242-3636 | 26
Bracket 42x53 | 1-242-4243 | 26
Bracket 42x88 | 1-242-4288 | 27
Bracket 57x57 | 1-242-5757 | 27
Bracket 75x75 | 1-242-7575 | 28
Bracket 88x88 | 1-242-8888 | 28
CAD Request Form | 69
Castor, through fixing, braked | C80T16B | 48
Castor, through fixing, unbraked | C80T16 | 48
Castor, flange fixing, braked | C80FB | 49
Castor, flange fixing, unbraked | C80F | 49
Choosing the Correct MCS System Profile for your Application | 54, 55
CM (Profiles with Linear Guides) | 66, 67
Conduit Duct 40x45 A | 0-133-0048 | 20
Conduit Duct 40x45 B | 0-133-0049 | 20
Conduit Duct 80x60 A | 0-133-8513 | 20
Conduit Duct 80x60 B | 0-133-8514 | 20
Conduit Duct 85x100 A | 0-133-8510 | 21
Conduit Duct 85x100 B | 0-133-8511 | 21
Conduit Duct 180x120 A | 0-133-0046 | 21
Conduit Duct 180x120 B | 0-133-0047 | 21
Connection Cross Reference Chart | 58
Connection Screw M6 | 1-242-1033 | 34
Connection Screw M8 | 1-242-1034 | 34
Connection Screw M12 | 1-242-1005 | 34
Connector Link Set | 1-242-1020 S | 31
Corner Piece Set | 1-242-1017 S | 32
Cover Bracket | 0-243-2225 | 34
Cover Strip (slot 6) | 1-242-1037 | 40
Cover Strip (slot 8) | 1-242-1038 | 40
Cover Strip (slot 10) | 1-242-1039 | 40
Cross Connector | 1-242-1003 | 30
Deflection Calculations | 52
End Cap 20x20 | 1-243-4049 | 40
End Cap 20x40 | 1-243-4050 | 40
End Cap 30x30 | 1-243-4047 | 40
End Cap 30x60 | 1-243-4051 | 40
End Cap 40x40 | 1-243-4041 | 40
End Cap 40x60 | 1-243-4052 | 40
End Cap 40 LR | 1-243-4053 | 40
CAD and Catalogue Request Form

Please send me:

☐ MCS System CAD library. The format I require is:
  ☐ DWG
  ☐ DXF

☐ Hepco Slide Systems CAD disk set, including Gen II, SL2 and CM. I require:
  ☐ DWG
  ☐ DXF

☐ Generation II  Precision Slide System Catalogue
☐ SL2  Stainless Steel Based Slide System Catalogue
☐ CM  Commercial Slide System Catalogue

Name ______________________________________________________________

Company____________________________________________________________

Address ____________________________________________________________
____________________________________________________________________
____________________________________________________________________

Postcode____________________________________________________________

Telephone __________________________________________________________

Fax ________________________________________________________________

E-mail ______________________________________________________________

Please photocopy this form and fax it to Hepco on: 01884 243500
Hepco products are available worldwide -
please request our catalogue FPL
or visit our website:
www.hepco.co.uk

Hepco Slide Systems Ltd
Lower Moor Business Park, Tiverton Way
Tiverton, Devon, England EX16 6TG

Sales Dept
Tel: 01884 257000 Fax: 01884 243500
E-mail: hepco.sales@hepco.co.uk

CATALOGUE No. MCS 01 UK © 1999 Hepco Slide Systems Ltd.
Reproduction in whole or part without prior authorisation from Hepco is prohibited. Although every effort has been made to ensure the accuracy of the information in this catalogue, Hepco cannot accept liability for any omissions or errors. Hepco reserves the right to make alterations to the product resulting from technical developments.

Many Hepco products are protected by: Patents, Copyright, Design Right or Registered Design. Infringement is strictly prohibited and may be challenged in law.

The Customer's attention is drawn to the following clause in Hepco's conditions of sale:

'It shall be the Customer's sole responsibility to ensure that goods supplied by Hepco will be suitable or fit for any particular application or purpose of the Customer, whether or not such application or purpose is known to Hepco. The Customer will be solely responsible for any errors in, or omissions from, any specifications or information the Customer provides. Hepco will not be obliged to verify whether any such specifications or information are correct or sufficient for any application or purpose.'

Hepco's full conditions of sale are available on request and will apply to all quotations and contracts for the supply of items detailed in this catalogue.