Sigmat, UK leader in light gauge steel framing, offer a cost-efficient and faster alternative to traditional building methods.

Your one-stop-shop for your next offsite construction project. We design, manufacture, and assemble all under one roof, and install load-bearing light gauge steel framing solutions of the highest quality at your site. With over 18 years of extensive experience and industry knowledge.

Combining engineering excellence, design expertise, and unrivalled manufacturing capabilities we offer light gauge steel framing solutions up to 15 storeys. From design through to installation, all our employees are in-house and highly skilled, delivering quality results.

Frame innovation

Specialising in the development of advanced pre-panelised light gauge steel structural framing systems and the delivery of a complete structural solution for bespoke projects.

Our innovative profiles offer improved structural performance by providing greater frame strength and buildability benefits.

We offer a wide scope of works including:

- Light Gauge Steel Superstructures
- Podium Transfer Structures
- Volumetric Panels
- Flooring Systems
- Roofs
- Stairs
- Balconies
- SigSafe Scaffoldless Erection
CONTENTS

ABOUT
Source to site solution........................................4
Our Locations..................................................5
System Summary................................................6

WALLS
Indicative Fire & Acoustic Performance.........................7
Separating Walls..................................................7
Internal Walls .....................................................8
External Walls ....................................................9
External Wall Finishes ......................................10-15

INCLUSIONS
Lift Shafts .........................................................16
Balconies ..........................................................17
Stairs .................................................................18
Floor - SigDeck...................................................19-20

Sigmat System Advantages..................................21-23

SIGMAT PROFILES
Sigmat Profile Shapes ........................................24

Sustainability ....................................................63

TECHNICAL
Technical Details ...............................................26-45
Z&C Purlins + Sheeting Rail ..............................46-62

Page

Page
SOURCE TO SITE SOLUTION

1. DESIGN

2. MANUFACTURE

3. ASSEMBLE

4. INSTALL
OUR LOCATIONS
SYSTEM SUMMARY

PODIUM TRANSFER STRUCTURE
- Including Steel Stairs
- Transfer Floor Slab 180mm
- SFS Non-Load Bearing

INTERNAL WALLS
- Un clad Braced Internal Walls
- Sole Plates (Where Required)
- Engineered Cold Rolled Galvanised Steel Panels

EXTERNAL WALLS
- Engineered Cold Rolled Galvanised Steel Panels
- Brick Tie Channels
- Calcium Silicate Board
- Visqueen Sheeting To Structural Openings
- Masonry Support
- Sole Plates

VOLUMETRIC PANELS
- Windows & Patio Doors
- Insulation
- Brick Tie Channels Or Similar
- Electrical Wiring To Back Box
- External Calcium Silicate Board
- Internal Boarding

FLOORS
- 180mm Slab
- Concrete Or Composite Purlin Decking
- Pre-Bordered Floor Cassettes

ROOFS
- 180mm Trapezoidal Profile Roof Deck
- Cold Rolled Purlins
- Concrete Roof

STAIRS
- Option 1
  - Standard Steel Tread Stairs
  - Steel Half Landing
- Option 2
  - 34mm Of Board Insert Stairs
  - 24mm Of Board Insert Half Landing Cassettes
- Option 3
  - 30mm Steel Tread To Allow For Screed
  - 18mm Concrete Half Landing

BALCONIES
- Hot Rolled Galvanised Steel Frame
- 24mm Of Board Insert

ADDITIONAL ITEMS
- SigaSar Stainless Steel Expansion System
- Lift Shaft Walls
- Lifting Of Bathrooms/Floors
- Lifting Of Plaster Board Panels
- Crawlage
- Scaffold/Mast Climber Ties

*Typically optional extras*
LOAD BEARING SEPARATING WALLS
INDICATIVE FIRE & ACOUSTIC PERFORMANCE

Refer to Technical Data Sheets for details of Tested Constructions

<table>
<thead>
<tr>
<th>Plasterboard Layers, Thickness &amp; Type (each side)</th>
<th>Indicative Acoustic Performance (Rw + Ctr) dB</th>
<th>Indicative Fire Rating (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 x 15mm Sound Board</td>
<td>54</td>
<td>60</td>
</tr>
<tr>
<td>2 x 15mm Fire + Sound Board</td>
<td>52</td>
<td>90</td>
</tr>
<tr>
<td>1 x 15mm + 2 x 12.5mm Fire Board</td>
<td>58</td>
<td>120</td>
</tr>
</tbody>
</table>

Examples:
- Fire Board - BG Fireline; Knauf Fire Panel
- Sound Board - BG Soundbloc; Knauf Sounshield Plus
- Fire + Sound Board - BG Soundbloc F; Knauf Performance Plus
LOAD-BEARING INTERNAL WALLS
INDICATIVE FIRE & ACOUSTIC PERFORMANCE

Refer to Technical Data Sheets for details of Tested Constructions

<table>
<thead>
<tr>
<th>Plasterboard Layers, Thickness &amp; Type (each side)</th>
<th>Indicative Acoustic Performance (Rw) dB</th>
<th>Indicative Fire Rating (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 x 12.5mm Fire Board</td>
<td>46</td>
<td>90</td>
</tr>
<tr>
<td>2 x 15mm Fire Board</td>
<td>46</td>
<td>120</td>
</tr>
</tbody>
</table>

Examples:
Fire Board - BG Fireline; Knauf Fire Panel
INNER LEAF OF EXTERNAL WALL - FIRE FROM INSIDE
INDICATIVE FIRE & ACOUSTIC PERFORMANCE

Refer to Technical Data Sheets for details of Tested Constructions

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2 x 12.5mm Fire Board</td>
<td>100</td>
<td>60</td>
</tr>
<tr>
<td>2 x 12.5mm Fire Board</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>1 x 15mm + 2 x 12.5mm Fire Board</td>
<td>100</td>
<td>90</td>
</tr>
<tr>
<td>1 x 15mm + 2 x 12.5mm Fire Board</td>
<td>50</td>
<td>120</td>
</tr>
</tbody>
</table>

Examples:
Fire Board - BG Fireline; Knauf Fire Panel
EXTERNAL WALL FINISHES
BRICK CLAD

The Sigmat pre-panelised loadbearing wall forms part of an installation-ready cavity wall system prior to the addition of a single outer leaf of brickwork. The walls are supplied with class A1 sheathing board, typically 12mm thick. It is pre-assembled off-site in our factory to enhance quality, speed and safety.

All Sigmat panels are designed to include pre-formed door and window openings and inner face is ready for the direct application of plasterboard lining finishes.

Component layers
EXTERNAL WALL FINISHES
BRICK SLIP

The Sigmat pre-panelised loadbearing wall forms part of an installation-ready cavity wall system prior to the addition of an outer leaf of brick slip system. The walls are supplied with class A1 sheathing board, typically 12mm thick. It is pre-assembled off-site in our factory to enhance quality, speed and safety.

All Sigmat panels are designed to include pre-formed door and window openings and inner face is ready for the direct application of plasterboard lining finishes.
**EXTERNAL WALL FINISHES**

**INSULATED RENDER**

Sigmat pre-panelised loadbearing wall forms part of an installation ready cavity wall system prior to the addition of a single outer leaf brickwork. The system is supplied with vertical stainless steel brick tie channels and rigid foil-faced urethane insulation, with variable thickness to suit the building’s required U-value. It is pre-assembled offsite in our factory to enhance quality, speed, safety.

All panels are designed to include pre-formed door and window openings and the inner face is ready for the direct application of plasterboard linings and finishes.
EXTERNAL WALL FINISHES
TIMBER CLADDING

Sigmat pre-panelised loadbearing external wall panels are clad on the outer face with class A1 sheathing board, typically 12mm thick, to receive insulation, sub-grid and timber cladding supplied and installed by the cladding specialist.

All Sigmat panels include pre-formed door and window openings and the inner face is ready for the direct application of plasterboard linings and finishes. This system can also be adopted for specialist zinc or copper cladding systems.
EXTERNAL WALL FINISHES
COMPOSITE PANEL

Sigmat pre-panelised loadbearing wall are clad on the outer face with a 12mm thick calcium silicate carrier board to receive the composite metal cladding panels. All are supplied and installed by cladding specialists.

The composite panel insulation core thickness can be varied to suit the building’s required U-value. All Sigmat panels include pre-formed door and window openings and the inner face is ready for the direct approach.

Component layers
VENTILATED RAINDSCEEN

Sigmat pre-panelised loadbearing wall forms part of an installation ready cavity wall system prior to the addition of a single outer leaf brickwork. The system is supplied with vertical stainless steel brick tie channels and rigid foil-faced urethane insulation, with variable thickness to suit the building's required U-value. It is pre-assembled offsite in our factory to enhance quality, speed, safety.

All panels are designed to include pre-formed door and window openings and the inner face is ready for the direct application of plasterboard linings and finishes.
LIFT SHAFT

Floor Finishes as Required

Detail here may vary on Floor Finishes and Rebate requirements

Double 412x25
Factory Fixed for attachment of Lift Door Base Guide Rail

16mm Cement Particle Board

Double 412x25
Factory Fixed for attachment of Lift Door Head Guide Rail

Lift Door Head and Threshold Detail

PFC (Typ) Lift Door Header

Typically 2 x 15mm Fire Board, e.g. Glasroc F

16mm Strip of Cement Particle Board behind Guide Rail Channels

Plasterboard

Resilient Bars (or independent Wall Lining)

Triple 412x25 Channel Factory Fixed to Sigmastuds

Vertical Section Detail - Lift Guide Attachment Points
**BALCONIES**

- **Connection with thermal isolating pad**
- **Cast in anchor rods provided to hold firmly in place**
- **Galvanised deck support members**
- **Post within panel to support cantilever arm**
- **Cantilever arms**
- **Galvanised primary balcony frame**
SigDeck is the new floor deck profile in Sigmat’s product range (2019). The S450 crushed end trapezoidal deck in 110mm deep and available in 0.8mm, 1.1mm and 1.4mm gauges.

The new range has an outstanding unpropped capacity to 5m spans and uses a 180mm deep slab, which gives much more flexibility in build for other trades below the deck. SigDeck can achieve up to 2hr fire rating with varying load types.

<table>
<thead>
<tr>
<th>Slab Depth (mm)</th>
<th>Volume of Concrete (m³/m²)</th>
<th>Weight of Concrete (normal weight)</th>
<th>Weight of Decking and reinforcement (kN/m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>180 (excluding ponding)</td>
<td>0.127</td>
<td>3.23</td>
<td>0.185-0.239</td>
</tr>
<tr>
<td>180 (max span including ponding)</td>
<td>0.142</td>
<td>3.63</td>
<td>0.185-0.239</td>
</tr>
</tbody>
</table>
## Profile Properties

<table>
<thead>
<tr>
<th>Profile Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

### Construction stage

- Ceiling
- Mesh, 25mm Cover
- 50mm Axis to Bar
- 140mm
- 300mm
- 600mm
- 100mm
- 180mm

**deflection mm**
**SIGMAT SYSTEM ADVANTAGES**

**Panel Head Track**

**BENEFIT**
Single piece ‘Top Hat’ panel head track reduces ‘in-build’ water ingress from floor-to-floor reducing programme build.

![Sigmat Solution](image1.png) ![Alternative Solution](image2.png)

**Bottom Track Drain Holes**

**BENEFIT**
Drain holes every 300mm prevents water build up in the bottom track avoiding the need to vacuum the bottom track prior to dry lining.

![Sigmat Solution](image3.png) ![Alternative Solution](image4.png)

**Sheathing Board to External Walls**

**BENEFIT**
Improved ‘racking strength’ and durability meaning it doesn’t crack as easily.

![Sigmat Solution](image5.png) ![Alternative Solution](image6.png)

**Panel to Panel Gasket**

**BENEFIT**
As part of our drive to control storey to storey water movement during the ‘in-build’ period we fit a 1mm neoprene gasket on our internal panels.

![Sigmat Solution](image7.png) ![Alternative Solution](image8.png)
SIGMAT SYSTEM ADVANTAGES

SIGMAT STUD

BENEFIT
The unique Sigmat load-bearing stud profile uses a double lip configuration, which together with a web stiffener rib, significantly increases the axial load capacity over that of a conventional 'C' section with a similar weight per metre.

Main Connection Bolt

BENEFIT
Patented SigBolt sits flat and level in embossed connection hole, assisting towards a flush finish for plasterboard.
SIGMAT SYSTEM ADVANTAGES

**SHEATHING BOARD RETAINING SCREW**

**BENEFIT**
Retaining screws use a large flat head to improve 'racking strength', particularly important when using heavy facade such as full brickwork.

**SIGNAL HIGH CAPACITY CROSS-BRACING**

**BENEFIT**
Sigmat high capacity cross-bracing offers a heavy duty 'in-panel' for greater strength whilst reducing problems experienced with some follow-on trades (dry liners, electricians).

**PANEL BOTTOM TRACK TO PANEL HEAD RETAINING SCREW**

**BENEFIT**
Sigmat screws are fitted with neoprene washer reducing likelihood of water ingress along the screen threads.
All unique patented light gauge steel framing sections and profiles. Sigmat profile sections are manufactured using hot dipped galvanised steel to (BSEN 10143:2006) in grades from S280 and S450, as required. They have a Z275 coating and are supplied self-finished.

**Sigmat Wall Stud**
The unique Sigmat wall stud is the principal load-bearing stud and is produced in a narrow and wide flange version in various material thicknesses between 1.2mm and 3mm.

The enhanced features of the stud are the additional return lips and web rib stiffener which combine to provide the significant increase in capacity compared to a traditional 'C' section.

**Sigmat Asymmetrical Jamb Stud**
An optimised version of the wall stud, the jamb stud is produced with a wide outer flange to receive a vertical brick tie channel, or other external features. It has a narrower inner flange in various material thicknesses between 1.2mm and 3mm.

The jamb stud uses a reduced profile girth and has the same additional features as the wall stud.

**Sigmat Head & Base Track**
The wall head & base track is a simple channel profile into which the vertical wall studs fit. They are connected using recess boss and boss bolt details to provide a flush connection.

The profile has an internal corner radius of 1.5mm and is produced as a slightly over-bent section to allow the vertical studs to achieve a full contact end bearing. The tracks are produced in various material thicknesses between 1.6mm and 3mm.

**Sigmat Internal Wall Head Top Hat**
The internal wall head is a single member top hat section produced in various depths between 160mm and 200mm. It is designed to support a composite metal deck reinforced-concrete floor, or a steel joisted floor cassette on the ledger flanges. The top hats are produced in 2mm and 3mm thicknesses.
AllUnique patented light gauge steel framing sections and profiles. Sigmat profile sections are manufactured using hot dipped galvanised steel to (BSEN 10143:2006) in grades from S280 and S450, as required. They have a Z275 coating and are supplied self-finished.

**End Wall Top Hat Track**
The profile is formed by combining the required functions of a traditional head track section with an internal top hat to form a single-piece profile. Used where an external end wall is required to support the floor slab. The end wall top hat tracks are products in varying depths between 160mm and 200mm and in 2mm and 3mm thicknesses.

The metal decking is supported on the ledger flanges and the vertical face of the profile provides a shutter trim for concreting works.

**Side Wall Top Hat Track**
Similar to the end wall top hat track, the top side wall top hat track is used to form the panel head on external wall panels where the composite metal decking is laid parallel to the wall and a side edge support / closure is required for the decking.

Produced in varying depths between 160mm and 200mm in 1.6mm and 2mm thicknesses.

**Side Closure Angle**
The side closure angles are produced for use in conjunction with a traditional head track as an alternative to the single-piece side wall top hat track.

The side closure angles are fixed to the wall panels on-site. The angles are provided pre-punched in varying depths between 160mm and 200mm in 2mm thickness.

**Diagonal Bracing**
SIGMAT Diagonal Structural Bracing is produced from 19mm round bar and is used in a series of crossed pairs to provide a tension bracing system for lateral structural stability. The bracing is contained within the structural zone of the wall panels, clear of lining boards and normal service penetrations through the linings.

The diagonal bars are bolted through the track/top hat at the connection with the vertical studs.
The following drawings give information for concise information, detail drawings.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Page</th>
<th>Building Zone</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIG-01-1</td>
<td>27</td>
<td>Window</td>
<td>Window Head &amp; Cill - Masonry Clad</td>
</tr>
<tr>
<td>SIG-01-2</td>
<td>28</td>
<td>Window</td>
<td>Window Jamb Detail - Masonry Clad</td>
</tr>
<tr>
<td>SIG-01-3</td>
<td>29</td>
<td>Wall</td>
<td>Wall Junction Plan - Masonry Clad</td>
</tr>
<tr>
<td>SIG-01-4</td>
<td>30</td>
<td>Wall</td>
<td>Wall Base Detail - Masonry Clad</td>
</tr>
<tr>
<td>SIG-01-5</td>
<td>31</td>
<td>Floor</td>
<td>Floor Junction Detail - Masonry Clad</td>
</tr>
<tr>
<td>SIG-01-6</td>
<td>32</td>
<td>Podium</td>
<td>Sigmat Podium - Masonry Clad Wall</td>
</tr>
<tr>
<td>SIG-01-7</td>
<td>33</td>
<td>Podium</td>
<td>RC (by others) Podium - Masonry Clad</td>
</tr>
<tr>
<td>SIG-01-8</td>
<td>34</td>
<td>Floor</td>
<td>Floor Junction Detail - Masonry Clad</td>
</tr>
<tr>
<td>SIG-02-1</td>
<td>35</td>
<td>Floor-Wall</td>
<td>Separating Floor - Wall Junction</td>
</tr>
<tr>
<td>SIG-02-2</td>
<td>36</td>
<td>Floor-Wall</td>
<td>Separating Floor - Wall Junction</td>
</tr>
<tr>
<td>SIG-02-3</td>
<td>37</td>
<td>Floor-Wall</td>
<td>Separating Floor - Wall Junction</td>
</tr>
<tr>
<td>SIG-02-4</td>
<td>38</td>
<td>Floor-Wall</td>
<td>RC (by others) Podium - Wall Junction</td>
</tr>
<tr>
<td>SIG-02-5</td>
<td>39</td>
<td>Floor-Wall</td>
<td>Separating Floor - Wall Junction</td>
</tr>
<tr>
<td>SIG-02-6</td>
<td>40</td>
<td>Door</td>
<td>Internal Door Head &amp; Jamb Details</td>
</tr>
<tr>
<td>SIG-03-1</td>
<td>41</td>
<td>Floor</td>
<td>Floor Edge Detail - Masonry Support</td>
</tr>
<tr>
<td>SIG-04-1</td>
<td>42</td>
<td>Roofs</td>
<td>Pitched Roof - Masonry Clad Eaves Detail</td>
</tr>
<tr>
<td>SIG-04-2</td>
<td>43</td>
<td>Roofs</td>
<td>Purlin Roof</td>
</tr>
<tr>
<td>SIG-04-3</td>
<td>44</td>
<td>Roofs</td>
<td>Terrace Perimeter - Masonry Clad</td>
</tr>
<tr>
<td>SIG-04-4</td>
<td>45</td>
<td>Roofs</td>
<td>Purlin Roof - Wall Junction</td>
</tr>
</tbody>
</table>
SIG-01-1
WINDOW HEAD & CILL - MASONRY CLAD

Masonry

Proprietary Lintel & Cavity Tray to Brick External Leaf

Vapour Barrier (Typ.)

Plasterboard

Sealant

Window

Cill Board

Insulated Cavity Closer

Flat Plate to Support Window

Thermal Insulation

Wall Ties

Wall Tie Channel

12mm Class Al Exterior Grade Sheathing Board

Sigmat Panel
SIG-01-2
WINDOW JAMB DETAIL - MASONRY CLAD

Masonry

Wall Ties
Insulated Cavity Closer

Window

Sealant

Jamb Stud

Plasterboard
Vapour Barrier (Typ.)

Wall Tie Channels Fixed Through Insulation into Studs with Stand-off Screws

Cavity

Thermal Insulation

12mm Class A1 External Grade Sheathing Board

Sigmat Panel - 100mm Studs @nom. 600mm spacing
SIG-01-6
SIGMAT PODIUM - MASONRY CLAD WALL
SIG-02-1
SEPARATING FLOOR - WALL JUNCTION

60 Minute Fire Resistance

- Sigmat Panel
- Plasterboard
- Intumescent Sealant
- Floating Floor (if required)
- Tie Bars
- Intumescent Sealant
- 150mm Wide x 15mm Glastroci Firecase
- Resilient Bars
- Sigmat Studs @ 600mm crs nominal
- Acoustic Insulation to Perimeter above Ceiling
- Stone Mineral Wool within Stud Void to create Flanking Detail

WWW.SIGMAT.CO.UK
90 Minute Fire Resistance

Sigmat Panel
Plasterboard
Intumescent Sealant
Floating Floor (if required)
Tie Bars
Stoneware Wool Void Fillers (100kg/m³)
150mm Wide x 25mm Glasroc Firecase
Plasterboard
Resilient Bars
Sigmat Studs @ 600mm crs nominal
Acoustic Insulation to Perimeter above Ceiling
Stone Mineral Wool within Stud Void to create Flanking Detail
120 Minute Fire Resistance
SIG-02-4
RC (BY OTHERS) PODIUM - WALL JUNCTION

Sigmat Panel
Plasterboard
DPC below Panel
130 wide Concrete Upstand (or 110x6mm Soleplate on Packs / Grout)
Intumescent Sealant
Floating Floor (if required)

RC Transfer Structure
SIG-02-6
INTERNAL DOOR HEAD & JAMB DETAILS

Internal Door Jamb Detail

Internal Door Head Detail

Door Frame Height

Allow for Fire Protection & Tolerance

Door Frame Width

Lining Boards wrap around Structural Opening

Sigmat Panel - 100mm Studs @ nom. 600mm spacing

Plasterboard

Sigmat Panel

Plasterboard

Lining Boards wrap around Structural Opening

Door
SIG-03-1
FLOOR EDGE DETAIL - MASONRY SUPPORT
SIG-04-1
PITCHED ROOF - MASONRY CLAD EAVES DETAIL

Wall Ties
Wall Tie Channel
Thermal Insulation
Masonry
12mm Class A1 Exterior Grade Sheathing Board

Sigmat Purlins
Plasterboard
Yapour Barrier (Typ.)
Sigmat Panel
SIG-04-3
TERRACE PERIMETER - MASONRY CLAD
SIG-04-4
PURLIN ROOF - WALL JUNCTION

Roof Membrane System
Insulation
Metal Roof Deck

Purlin Cleat
Z Purlin
Plasterboard
Sigmat Panel
PURLINS DATASHEET MODEL

Sigmat Zed and Cee Building Shell Profiles are all manufactured from pre-hot dipped Galvanised Steel Grade S450GD+Z G275 conforming to BS EN 10346

Holes can be formed at positions indicated in the profile, & at any position along the length.

Standard hole size 13.4mm.
15mm & 22mm holes also available.

<table>
<thead>
<tr>
<th>Section Zed</th>
<th>Reference Cee</th>
<th>Weight Kg/m</th>
<th>Area cm²</th>
<th>W mm</th>
<th>F mm</th>
<th>L mm</th>
<th>A mm</th>
<th>Gauge mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>125SZ16</td>
<td>1225C16</td>
<td>3.65</td>
<td>4.54</td>
<td>122</td>
<td>60</td>
<td>19.2</td>
<td>30</td>
<td>1.6</td>
</tr>
<tr>
<td>122SZ20</td>
<td>1225C20</td>
<td>4.54</td>
<td>5.66</td>
<td>122</td>
<td>60</td>
<td>20.0</td>
<td>30</td>
<td>2.0</td>
</tr>
<tr>
<td>145SZ16</td>
<td>1425C16</td>
<td>3.91</td>
<td>4.85</td>
<td>142</td>
<td>60</td>
<td>19.2</td>
<td>30</td>
<td>1.6</td>
</tr>
<tr>
<td>142SZ20</td>
<td>1425C20</td>
<td>4.85</td>
<td>6.06</td>
<td>142</td>
<td>60</td>
<td>20.0</td>
<td>30</td>
<td>2.0</td>
</tr>
<tr>
<td>175SZ16</td>
<td>1725C16</td>
<td>4.78</td>
<td>5.17</td>
<td>172</td>
<td>60</td>
<td>19.2</td>
<td>40</td>
<td>1.6</td>
</tr>
<tr>
<td>172SZ20</td>
<td>1725C20</td>
<td>5.32</td>
<td>6.64</td>
<td>172</td>
<td>60</td>
<td>20.0</td>
<td>40</td>
<td>2.0</td>
</tr>
<tr>
<td>202SZ16</td>
<td>2025C16</td>
<td>4.66</td>
<td>5.79</td>
<td>202</td>
<td>60</td>
<td>19.2</td>
<td>40</td>
<td>1.6</td>
</tr>
<tr>
<td>200SZ20</td>
<td>2025C20</td>
<td>5.79</td>
<td>7.23</td>
<td>202</td>
<td>60</td>
<td>20.0</td>
<td>40</td>
<td>2.0</td>
</tr>
<tr>
<td>2025C23</td>
<td>2025C23</td>
<td>6.63</td>
<td>8.29</td>
<td>202</td>
<td>60</td>
<td>20.6</td>
<td>40</td>
<td>2.3</td>
</tr>
<tr>
<td>2325C16</td>
<td>2325C16</td>
<td>5.04</td>
<td>6.26</td>
<td>232</td>
<td>60</td>
<td>19.2</td>
<td>40</td>
<td>1.6</td>
</tr>
<tr>
<td>2325C20</td>
<td>2325C20</td>
<td>6.26</td>
<td>7.82</td>
<td>232</td>
<td>60</td>
<td>20.0</td>
<td>40</td>
<td>2.0</td>
</tr>
<tr>
<td>2325C23</td>
<td>2325C23</td>
<td>7.17</td>
<td>8.97</td>
<td>232</td>
<td>60</td>
<td>20.6</td>
<td>40</td>
<td>2.3</td>
</tr>
<tr>
<td>2625C20</td>
<td>2625C20</td>
<td>7.21</td>
<td>9.00</td>
<td>262</td>
<td>75</td>
<td>20.0</td>
<td>50</td>
<td>2.0</td>
</tr>
<tr>
<td>2625C23</td>
<td>2625C23</td>
<td>8.25</td>
<td>10.33</td>
<td>262</td>
<td>75</td>
<td>20.6</td>
<td>50</td>
<td>2.3</td>
</tr>
<tr>
<td>2625C29</td>
<td>2625C29</td>
<td>10.29</td>
<td>12.93</td>
<td>262</td>
<td>75</td>
<td>21.8</td>
<td>50</td>
<td>2.9</td>
</tr>
<tr>
<td>3025C20</td>
<td>3025C20</td>
<td>7.83</td>
<td>9.78</td>
<td>302</td>
<td>75</td>
<td>20.0</td>
<td>50</td>
<td>2.0</td>
</tr>
<tr>
<td>300C23</td>
<td>300C23</td>
<td>8.97</td>
<td>11.23</td>
<td>302</td>
<td>75</td>
<td>20.6</td>
<td>50</td>
<td>2.3</td>
</tr>
<tr>
<td>3025C29</td>
<td>3025C29</td>
<td>11.20</td>
<td>14.07</td>
<td>302</td>
<td>75</td>
<td>21.0</td>
<td>50</td>
<td>2.9</td>
</tr>
<tr>
<td>3425C23</td>
<td>3425C23</td>
<td>9.67</td>
<td>12.14</td>
<td>342</td>
<td>75</td>
<td>20.6</td>
<td>50</td>
<td>2.3</td>
</tr>
<tr>
<td>3425C29</td>
<td>3425C29</td>
<td>12.11</td>
<td>15.22</td>
<td>342</td>
<td>75</td>
<td>21.8</td>
<td>50</td>
<td>2.9</td>
</tr>
<tr>
<td>3825C23</td>
<td>3825C23</td>
<td>10.42</td>
<td>13.04</td>
<td>382</td>
<td>75</td>
<td>20.6</td>
<td>50</td>
<td>2.3</td>
</tr>
<tr>
<td>3825C29</td>
<td>3825C29</td>
<td>13.02</td>
<td>16.36</td>
<td>382</td>
<td>75</td>
<td>21.8</td>
<td>50</td>
<td>2.9</td>
</tr>
<tr>
<td>4325C23</td>
<td>4325C23</td>
<td>14.16</td>
<td>17.79</td>
<td>432</td>
<td>75</td>
<td>21.8</td>
<td>50</td>
<td>2.9</td>
</tr>
</tbody>
</table>
### 'C' Sections - Steel Profiles

**122mm**

![Diagram of 122mm profile]

**142mm**

![Diagram of 142mm profile]

### Material & Tolerances

Gauge to Conform to BS EN 10143 - 'Special tolerances'
Material to Conform to BS EN 10346

<table>
<thead>
<tr>
<th>Section</th>
<th>GAUGE</th>
<th>Strip Width</th>
<th>Grade</th>
<th>Coating</th>
</tr>
</thead>
<tbody>
<tr>
<td>122GC13</td>
<td>1.3</td>
<td>314</td>
<td>S460GD+Z</td>
<td>0.275</td>
</tr>
<tr>
<td>122GC16</td>
<td>1.6</td>
<td>311</td>
<td>S460GD+Z</td>
<td>0.275</td>
</tr>
<tr>
<td>122GC20</td>
<td>2.0</td>
<td>399</td>
<td>S460GD+Z</td>
<td>0.275</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section</th>
<th>GAUGE</th>
<th>Strip Width</th>
<th>Grade</th>
<th>Coating</th>
</tr>
</thead>
<tbody>
<tr>
<td>142GC13</td>
<td>1.3</td>
<td>314</td>
<td>S460GD+Z</td>
<td>0.275</td>
</tr>
<tr>
<td>142GC16</td>
<td>1.6</td>
<td>311</td>
<td>S460GD+Z</td>
<td>0.275</td>
</tr>
<tr>
<td>142GC20</td>
<td>2.0</td>
<td>399</td>
<td>S460GD+Z</td>
<td>0.275</td>
</tr>
</tbody>
</table>
'C' SECTIONS - STEEL PROFILES

MATERIAL & TOLERANCES
Gauge to Conform to BS EN 10143 - 'Special tolerances'
Material to Conform to BS EN 10346

<table>
<thead>
<tr>
<th>SECTION</th>
<th>GAUGE</th>
<th>STRIP WIDTH</th>
<th>GRADE</th>
<th>COATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>C20</td>
<td>1.6</td>
<td>371</td>
<td>S460</td>
<td>G0+Z</td>
</tr>
<tr>
<td>C20</td>
<td>2.0</td>
<td>369</td>
<td>S460</td>
<td>G0+Z</td>
</tr>
<tr>
<td>C20</td>
<td>2.3</td>
<td>367</td>
<td>S460</td>
<td>G0+Z</td>
</tr>
</tbody>
</table>

172mm

202mm
'C' SECTIONS - STEEL PROFILES

262mm

MATERIAL & TOLERANCES
Gauge to Conform to BS EN 10143 - 'Special tolerances'
Material to Conform to BS EN 10346

<table>
<thead>
<tr>
<th>SECTION</th>
<th>GAUGE</th>
<th>STRIP WIDTH</th>
<th>GRADE</th>
<th>COATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>262C25</td>
<td>3.0</td>
<td>469</td>
<td>S460GD+Z</td>
<td>G275</td>
</tr>
<tr>
<td>262C23</td>
<td>2.3</td>
<td>457</td>
<td>S460GD+Z</td>
<td>G275</td>
</tr>
<tr>
<td>262C20</td>
<td>2.0</td>
<td>452</td>
<td>S460GD+Z</td>
<td>G275</td>
</tr>
</tbody>
</table>
C SECTIONS - STEEL PROFILES

302mm

MATERIAL & TOLERANCES
Gauge to Conform to BS EN 10143 - 'Special tolerances'
Material to Conform to BS EN 10346

<table>
<thead>
<tr>
<th>SECTION</th>
<th>GAUGE</th>
<th>STRIP WIDTH</th>
<th>GRADE</th>
<th>COATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>302BC33</td>
<td>2.0</td>
<td>499</td>
<td>S460GD+Z</td>
<td>G275</td>
</tr>
<tr>
<td>302BC33</td>
<td>2.3</td>
<td>497</td>
<td>S460GD+Z</td>
<td>G275</td>
</tr>
<tr>
<td>302BC33</td>
<td>2.9</td>
<td>492</td>
<td>S460GD+Z</td>
<td>G275</td>
</tr>
</tbody>
</table>
‘C’ SECTIONS - STEEL PROFILES

342mm

MATERIAL & TOLERANCES
Gauge to Conform to BS EN 10143 - ‘Special tolerances’
Material to Conform to BS EN 10346

<table>
<thead>
<tr>
<th>SECTION</th>
<th>GAUGE</th>
<th>STRIP WIDTH</th>
<th>GRADE</th>
<th>COATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>342SC13</td>
<td>2.7</td>
<td>537</td>
<td>S4S0GD+Z</td>
<td>0275</td>
</tr>
<tr>
<td>342SC19</td>
<td>2.9</td>
<td>532</td>
<td>S4S0GD+Z</td>
<td>0275</td>
</tr>
</tbody>
</table>
'C' SECTIONS - STEEL PROFILES

382mm

MATERIAL & TOLERANCES
Gauge to Conform to BS EN 10143 - 'Special tolerances'
Material to Conform to BS EN 10346

<table>
<thead>
<tr>
<th>SECTION</th>
<th>GAUGE</th>
<th>STRIP WIDTH</th>
<th>GRADE</th>
<th>COATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>380BG23</td>
<td>2.3</td>
<td>877</td>
<td>S460GD+Z</td>
<td>0.275</td>
</tr>
<tr>
<td>380BG29</td>
<td>2.9</td>
<td>872</td>
<td>S460GD+Z</td>
<td>0.275</td>
</tr>
</tbody>
</table>

WWW.SIGMAT.CO.UK
‘C’ SECTIONS - STEEL PROFILES

432mm

MATERIAL & TOLERANCES
Gauge to Conform to BS EN 10143 - ‘Special tolerances’
Material to Conform to BS EN 10346

<table>
<thead>
<tr>
<th>SECTION</th>
<th>GAUGE</th>
<th>STRIP WIDTH</th>
<th>GRADE</th>
<th>COATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>432SC29</td>
<td>3.0</td>
<td>622</td>
<td>S495GD-2</td>
<td>G378</td>
</tr>
</tbody>
</table>
‘Z’ SECTIONS - STEEL PROFILES

MATERIAL & TOLERANCES
Gauge to Conform to BS EN 10143 - 'Special tolerances'
Material to Conform to BS EN 10346

<table>
<thead>
<tr>
<th>SECTION</th>
<th>GAUGE</th>
<th>STRIP WIDTH</th>
<th>GRADE</th>
<th>COATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>122 EZ13</td>
<td>1.3</td>
<td>314</td>
<td>S450GD+Z</td>
<td>0276</td>
</tr>
<tr>
<td>122 EZ16</td>
<td>1.6</td>
<td>311</td>
<td>S450GD+Z</td>
<td>0276</td>
</tr>
<tr>
<td>122 EZ20</td>
<td>2.0</td>
<td>309</td>
<td>S450GD+Z</td>
<td>0276</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SECTION</th>
<th>GAUGE</th>
<th>STRIP WIDTH</th>
<th>GRADE</th>
<th>COATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>142 EZ13</td>
<td>1.3</td>
<td>314</td>
<td>S450GD+Z</td>
<td>0276</td>
</tr>
<tr>
<td>142 EZ16</td>
<td>1.6</td>
<td>311</td>
<td>S450GD+Z</td>
<td>0276</td>
</tr>
<tr>
<td>142 EZ20</td>
<td>2.0</td>
<td>309</td>
<td>S450GD+Z</td>
<td>0276</td>
</tr>
</tbody>
</table>

122mm

142mm
'Z' SECTIONS - STEEL PROFILES

172mm

MATERIAL & TOLERANCES
Gauge to Conform to BS EN 10143 - 'Special tolerances'
Material to Conform to BS EN 10346

<table>
<thead>
<tr>
<th>SECTION</th>
<th>GAUGE</th>
<th>STRIP WIDTH</th>
<th>GRADE</th>
<th>COATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>172SZ13</td>
<td>1.3</td>
<td>344</td>
<td>S450GD+Z</td>
<td>G275</td>
</tr>
<tr>
<td>172SZ16</td>
<td>1.6</td>
<td>341</td>
<td>S450GD+Z</td>
<td>G275</td>
</tr>
<tr>
<td>172SZ20</td>
<td>2.0</td>
<td>339</td>
<td>S450GD+Z</td>
<td>G275</td>
</tr>
</tbody>
</table>

202mm

MATERIAL & TOLERANCES
Gauge to Conform to BS EN 10143 - 'Special tolerances'
Material to Conform to BS EN 10346

<table>
<thead>
<tr>
<th>SECTION</th>
<th>GAUGE</th>
<th>STRIP WIDTH</th>
<th>GRADE</th>
<th>COATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>202SZ16</td>
<td>1.6</td>
<td>371</td>
<td>S450GD+Z</td>
<td>G275</td>
</tr>
<tr>
<td>202SZ20</td>
<td>2.0</td>
<td>389</td>
<td>S450GD+Z</td>
<td>G275</td>
</tr>
<tr>
<td>202SZ23</td>
<td>2.3</td>
<td>387</td>
<td>S450GD+Z</td>
<td>G275</td>
</tr>
</tbody>
</table>
'Z' SECTIONS - STEEL PROFILES

232mm

MATERIAL & TOLERANCES
Gauge to Conform to BS EN 10143 - 'Special tolerances'
Material to Conform to BS EN 10346

<table>
<thead>
<tr>
<th>SECTION</th>
<th>GAUGE</th>
<th>STRIP WIDTH</th>
<th>GRADE</th>
<th>COATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>232SZ16</td>
<td>1.6</td>
<td>401</td>
<td>S450GD+Z</td>
<td>50275</td>
</tr>
<tr>
<td>232SZ20</td>
<td>2.0</td>
<td>399</td>
<td>S450GD+Z</td>
<td>50275</td>
</tr>
<tr>
<td>232SZ23</td>
<td>2.3</td>
<td>397</td>
<td>S450GD+Z</td>
<td>50275</td>
</tr>
</tbody>
</table>

WWW.SIGMAT.CO.UK
‘Z’ SECTIONS - STEEL PROFILES

262mm

MATERIAL & TOLERANCES
Gauge to Conform to BS EN 10143 - ‘Special tolerances’
Material to Conform to BS EN 10346

<table>
<thead>
<tr>
<th>SECTION</th>
<th>GAUGE</th>
<th>STRIP WIDTH</th>
<th>GRADE</th>
<th>COATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>2628Z25</td>
<td>2.0</td>
<td>459</td>
<td>S460Q+Z</td>
<td>G271</td>
</tr>
<tr>
<td>2628Z23</td>
<td>2.1</td>
<td>457</td>
<td>S460Q+Z</td>
<td>G271</td>
</tr>
<tr>
<td>2628Z29</td>
<td>2.3</td>
<td>452</td>
<td>S460Q+Z</td>
<td>G271</td>
</tr>
</tbody>
</table>
'Z' SECTIONS - STEEL PROFILES

302mm

MATERIAL & TOLERANCES
Gauge to Conform to BS EN 10143 - 'Special tolerances'
Material to Conform to BS EN 10346

<table>
<thead>
<tr>
<th>SECTION</th>
<th>GAUGE</th>
<th>STRIP WIDTH</th>
<th>GRADE</th>
<th>COATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>302S2ZD</td>
<td>2.0</td>
<td>459</td>
<td>S460GD+Z</td>
<td>Z8275</td>
</tr>
<tr>
<td>302S2Z3</td>
<td>2.3</td>
<td>497</td>
<td>S460GD+Z</td>
<td>Z8275</td>
</tr>
<tr>
<td>302S2Z9</td>
<td>2.9</td>
<td>492</td>
<td>S460GD+Z</td>
<td>Z8275</td>
</tr>
</tbody>
</table>
‘Z’ SECTIONS - STEEL PROFILES

342mm

MATERIAL & TOLERANCES
Gauge to Conform to BS EN 10143 - ‘Special tolerances’
Material to Conform to BS EN 10346

<table>
<thead>
<tr>
<th>SECTION</th>
<th>GAUGE</th>
<th>STRIP WIDTH</th>
<th>GRADE</th>
<th>COATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>342Z23</td>
<td>2.3</td>
<td>537</td>
<td>S465/P-Z</td>
<td>0.275</td>
</tr>
<tr>
<td>342Z29</td>
<td>2.9</td>
<td>532</td>
<td>S465/P-Z</td>
<td>0.275</td>
</tr>
</tbody>
</table>
'Z' SECTIONS - STEEL PROFILES

382mm

MATERIAL & TOLERANCES
Gauge to Conform to BS EN 10143 - 'Special tolerances'
Material to Conform to BS EN 10346

<table>
<thead>
<tr>
<th>SECTION</th>
<th>GAUGE</th>
<th>STRIP WIDTH</th>
<th>GRADE</th>
<th>COATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>382S211</td>
<td>2.3</td>
<td>577</td>
<td>S450GD-Z</td>
<td>0.275</td>
</tr>
<tr>
<td>382S219</td>
<td>2.0</td>
<td>572</td>
<td>S450GD-Z</td>
<td>0.275</td>
</tr>
</tbody>
</table>
'Z' SECTIONS - STEEL PROFILES

432mm

MATERIAL & TOLERANCES
Gauge to Conform to BS EN 10143 - 'Special tolerances'
Material to Conform to BS EN 10346

<table>
<thead>
<tr>
<th>SECTION</th>
<th>GAUGE</th>
<th>STRIP WIDTH</th>
<th>GRADE</th>
<th>COATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>432Z219</td>
<td>7.5</td>
<td>422</td>
<td>S450CD+Z</td>
<td>Z275</td>
</tr>
</tbody>
</table>
We are committed to sustainability and recognise its significance to our on-going success.

Concern for the environment and promoting a broader sustainability agenda are integral to our core values. We are committed to creating and maintaining good sustainable practises which reduce environmental impact to our activities and of each project.

It is well known that steel is one of the world’s most recycled materials with a potential recovery and re-use factor in excess of 90%. Steel framed structures are also the predominant form of construction for multi-storey buildings.

Light gauge framed steel structures are substantially lighter than traditional steel framed buildings allowing significant reduction in the weight of steel used. This offers a substantial reduction in the overall carbon footprint of a building.
GET IN TOUCH

T: 01756 701 522
E: enquiries@sigmat.co.uk
www.sigmat.co.uk

WHERE TO FIND US

HEAD OFFICE
Birkbecks
Water Street
Skipton
North Yorkshire
BD23 1PB

MANUFACTURING FACILITY
Unit A
Cross Green Close
Leeds
West Yorkshire
LS9 0RY

CONTRACT SUPPORT CENTRE
1 Crossland Park
Cross Green Way
Leeds
West Yorkshire
LS9 0SE

R&D CENTRE
Nicholas House
Heath Park
Croppthorne
Worcestershire
WR10 3NE

GLASGOW REGIONAL OFFICE
Suite 1.01
Innovation Centre
1 Ainslie Road
Glasgow
G52 4RU

ELLAND REGIONAL OFFICE
Gannex House
Gannex Park
Dewsbury Road
Elland
HX5 9AF

TEESSIDE REGIONAL OFFICE
Wynyard Park House
Wynyard Business Park
Wynyard Avenue
Billingham
TS22 5TB

BIRMINGHAM REGIONAL OFFICE
Opening Soon
NEC / Birmingham Airport

sigmat
LIGHT GAUGE STEEL FRAMING