

Bespoke Manufacturing

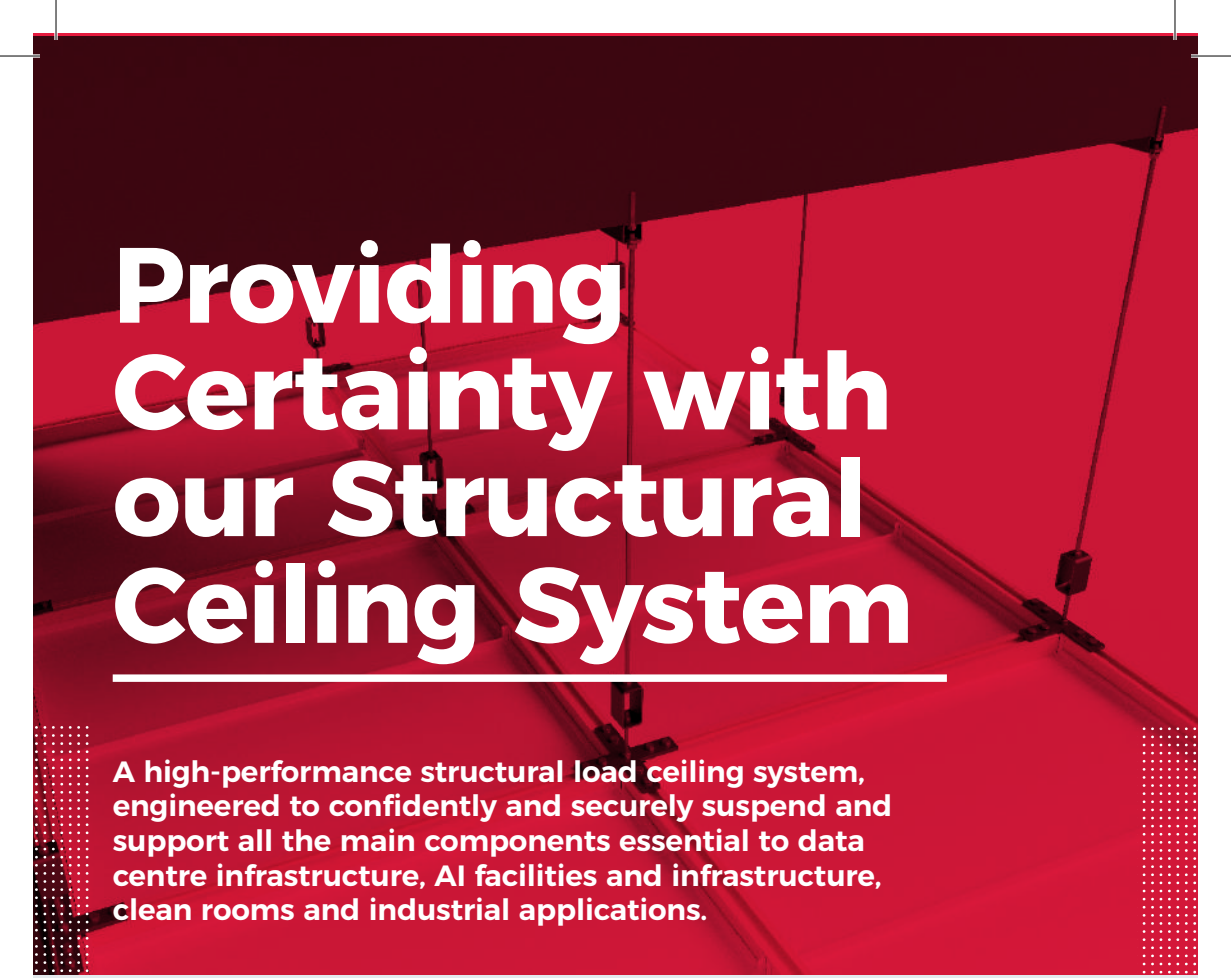


Datalec Hyperion Ceiling System

Product Data Sheet

**Setting a new benchmark
in performance and strength**

datalecltd.com



Providing Certainty with our Structural Ceiling System

A high-performance structural load ceiling system, engineered to confidently and securely suspend and support all the main components essential to data centre infrastructure, AI facilities and infrastructure, clean rooms and industrial applications.

Datalec Hyperion Ceiling System

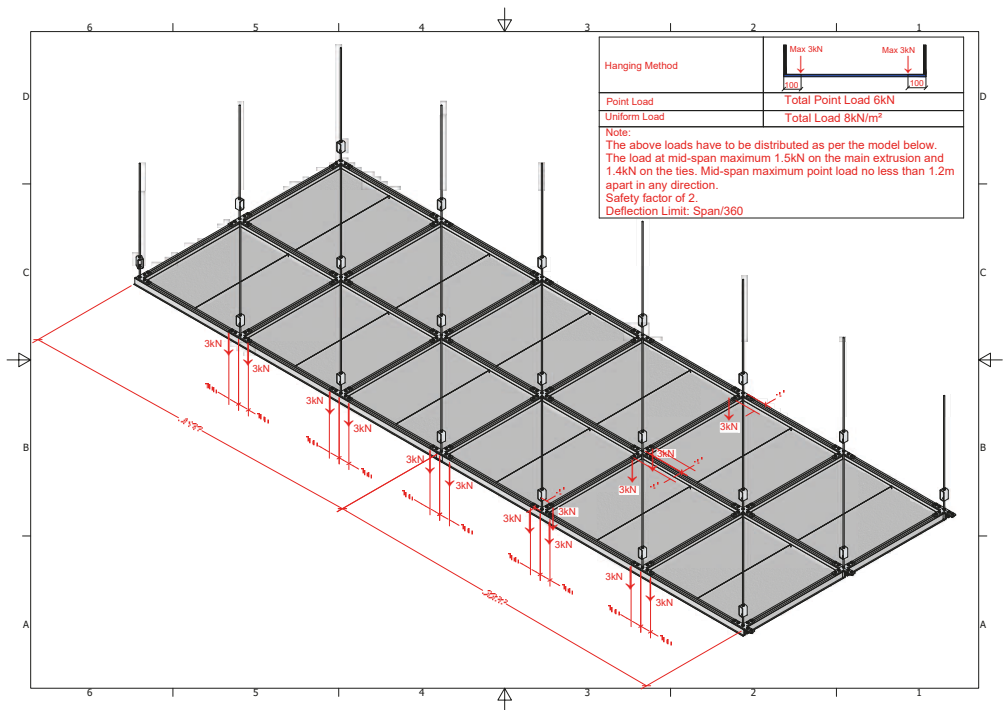
Reliable, Adaptable, and Cost-Effective Ceiling System

The Datalec Hyperion Ceiling System is a pre-engineered, aluminium structural ceiling designed for maximum functionality and durability. Featuring continuously slotted primary elements and secondary supports secured with robust steel connectors, it provides a stable and efficient solution for suspending power modules/ busbars, cable containment, HOT/ COLD aisle containment and various other essential data centre infrastructure components.

Engineered for versatility, the heavy-duty aluminium grid is quick to install, highly adaptable, and configurable to meet the unique specifications of any data centre. Our innovative extrusion design ensures compatibility with standard strut fasteners, streamlining assembly while enhancing structural integrity.

Technical Specification

Parameter	Specification
Material	Extruded aluminium with channelled design
Grid Configuration	Primary & secondary modules, continuous channels
Grid Centres	1200 × 1200 mm
Clear Tile Opening	1129.6 × 1129.6 mm
Point Load	6kN. ***See diagram for load distribution ***
Uniform Load	8kN/m ² ***See diagram for load distribution ***
Connector Type	S-355 steel connectors
Fastener Compatibility	Standard strut fastening system
Surface Finish	Powder-coated
Hanging Method	Bespoke channelled extrusion; compatible with std. strut fixings





Designed and manufactured by DPI for seamless installation, the Hyperion Ceiling System provides long-lasting, high-performance support tailored for the demands of modern data centre operations. Its robust architecture is engineered to accommodate advanced AI facilities and infrastructure, ensuring optimal environmental control, scalability, and reliability for mission-critical workloads.

Key Features & Benefits

- **Robust Load Performance:**

- Point Load Capacity: **6 kN** (load distribution as per diagram).
- Uniform Load Capacity: **8 kN/m²** (load distribution as per diagram).
- Safety factor: **2**

Suspended load data has been independently tested and certified by a third party accredited engineering body.

- **Modular & Prefabricated Design:**

- Consists of double channel primary and secondary aluminium grid elements, joined via steel connectors — fast, consistent installation with high tolerance control.

- **Service-friendly Grid:**

- 1200×1200 mm centres, offering clear grid openings of 1129.6 × 1129.6mm, ideal for MEWP access and maintenance.

- **Versatile Application:**

- Engineered for data centre infrastructure, including AI applications, clean rooms, industrial ceilings, and containment systems.

- **Quality & Control:**

- Manufactured in the DPI's **UK** and **UAE** ISO-9001 accredited facilities, providing repeatable build quality and delivery certainty.

Components

Primary Grid Rails

Product Code:

HYPE1-EXTS (1129mm l)

HYPE1-EXTL (3600mm l)



Load-bearing
channelled extrusions

L Connector

Product Code:

HYPE1-LPLT



S-355 steel

T Connector

Product Code:

HYPE1-TPLT



S-355 steel

X Connector

Product Code:

HYPE1-CPLT



S-355 steel

8mm S-355 RHS connector W 50mm x H 100mm

Product Code:

HYPE1-BRKT



Grid to structure connector
for easy height adjustment

Providing Certainty with our Structural Ceiling System

Components

M10 x 30 Hex Bolt

Product Code:
ZHEX1-00003



For grid fastening

M10 Washer

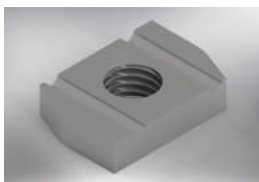
Product Code:
ZWSI-00010



For grid fastening

M10 Channel Nut

Product Code:
ZNUT1-000028



For grid fastening

M10x150 Rod

Product Code:
THRI-00002



For grid fastening

Panel Clip

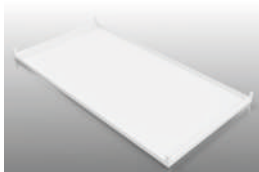
Product Code:
HYPE1-CLIP



Steel clip to secure
ceiling panels

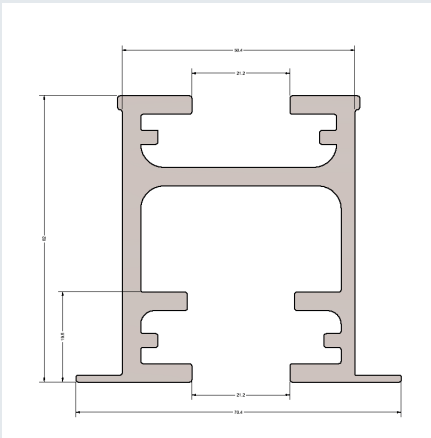
Ceiling Tile

Product Code:
HYPE1-TILE



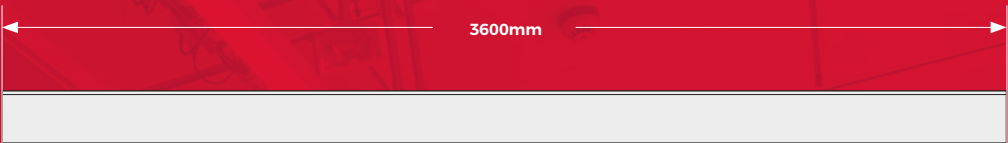
Steel ceiling tile (thickness 1mm)
L – 1146.70mm
W – 573.80mm

Cross Section

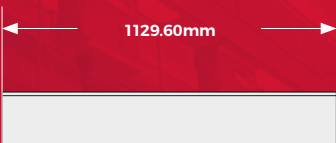


Grid & Tile sizing

Main Runner

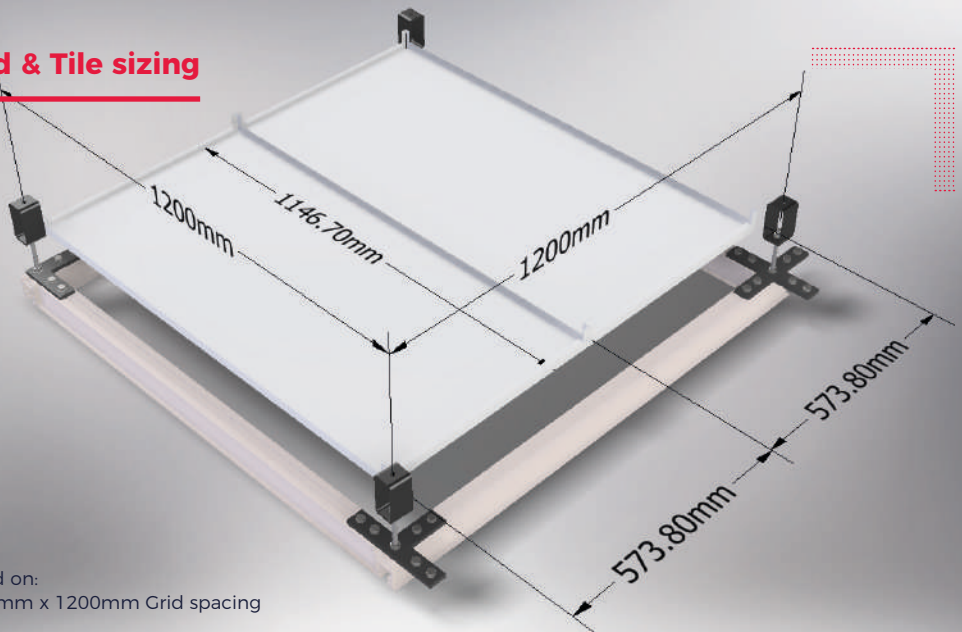


Cross Member



Grid Profile	Hyperion Ceiling
Grid Spacing	1200mm x 1200mm
Tile sizing	1146.70mm x 573.80mm (See example overleaf)

Grid & Tile sizing



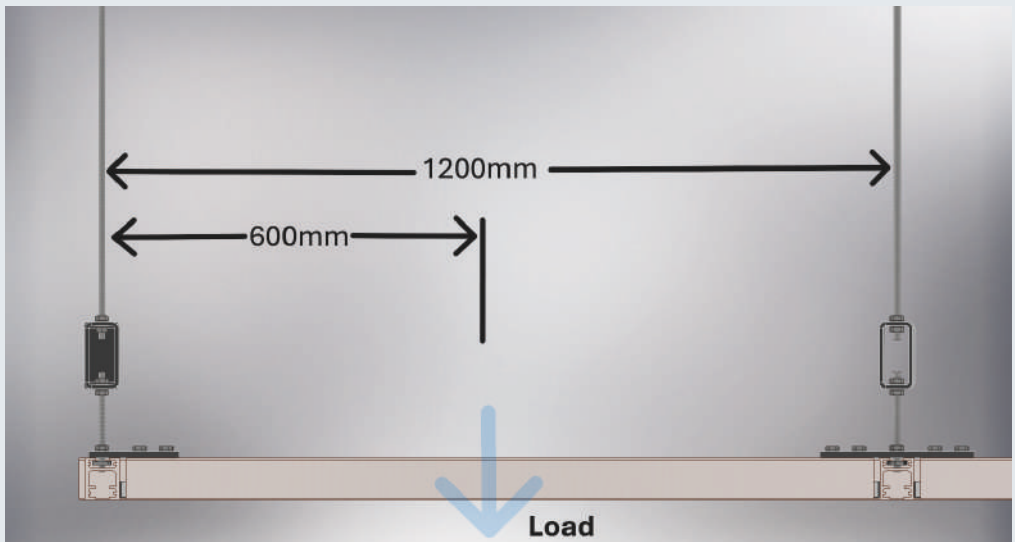
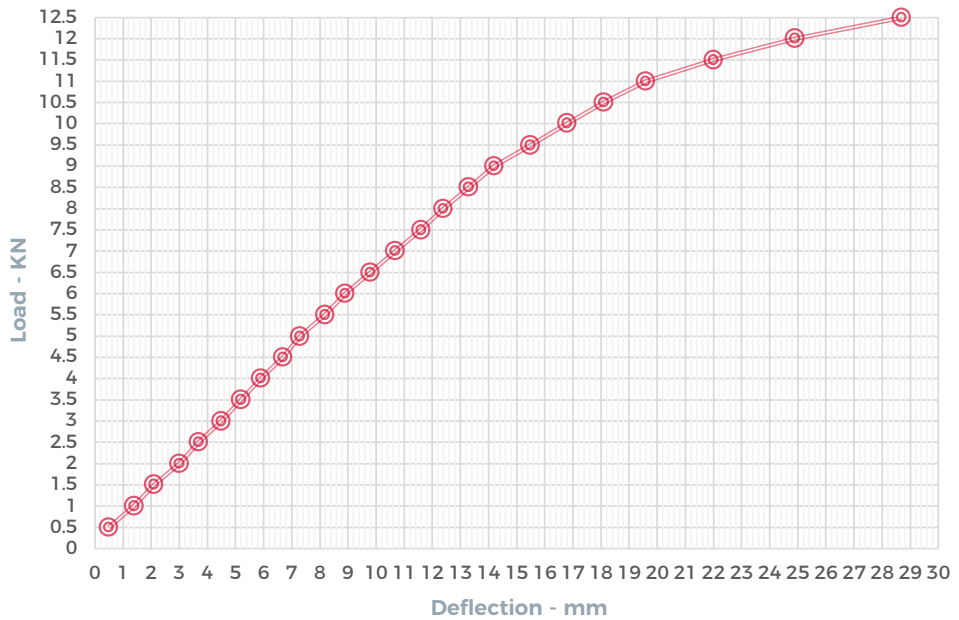
Based on:
1200mm x 1200mm Grid spacing



Performance Criteria

The bottom side of the structural grid has 21.2mm continuous channels, compatible with std. strut fasteners, for mounting items directly to the grid. Refer to the table overleaf for load performance details on the grid and connections

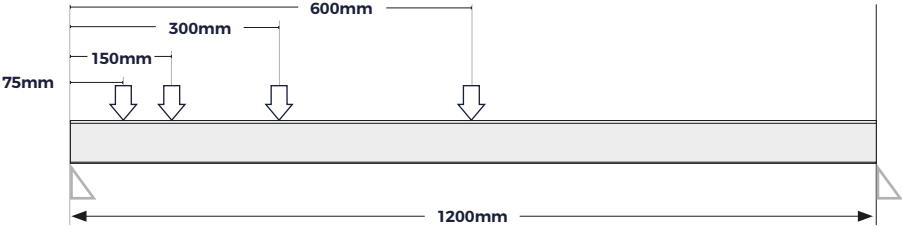
Load Data on Cross Member



Cross Member Deflection

Hyperion Load Data

Point Load and Deflection

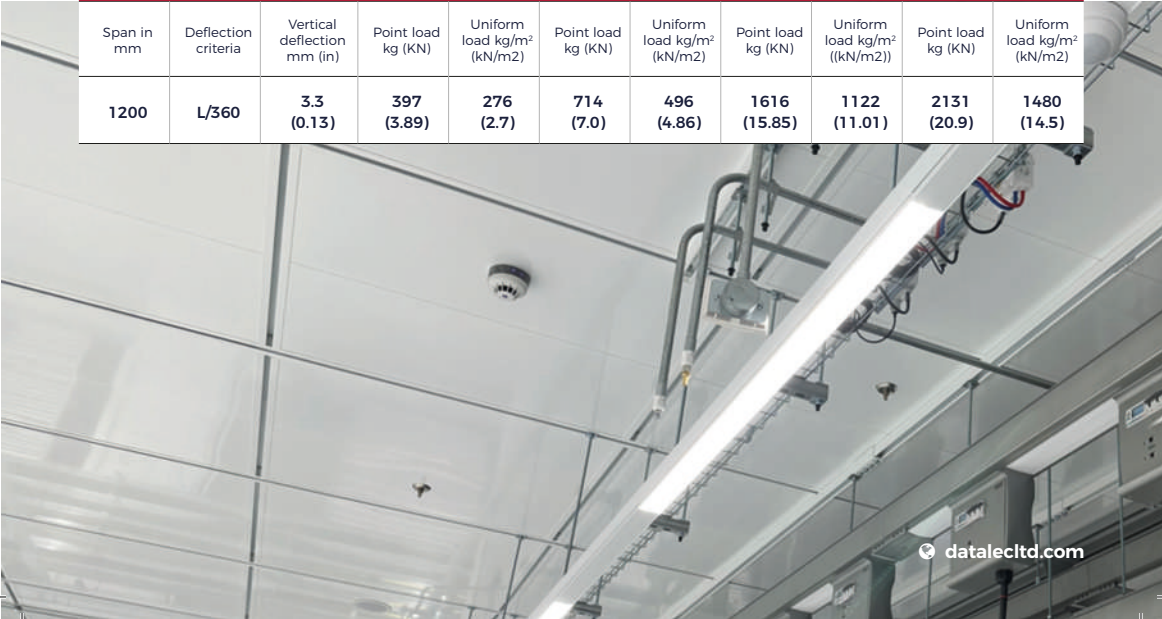


Cross Member Load and Deflection Data

Single point load			kg @ 600mm		kg @ 300mm		kg @ 150mm		kg @ 75mm	
Span in mm	Deflection criteria	Vertical deflection mm (in)	Point load kg (kN)	Uniform load kg/m ² (kN/m ²)	Point load kg (kN)	Uniform load kg/m ² (kN/m ²)	Point load kg (kN)	Uniform load kg/m ² (kN/m ²)	Point load kg (kN)	Uniform load kg/m ² (kN/m ²)
1200	L/360	3.3 (0.13)	326 (3.2)	226 (2.2)	398 (3.9)	276 (2.7)	703 (6.9)	488 (4.79)	682 (6.7)	474 (4.65)

Main Runner Load and Deflection Data

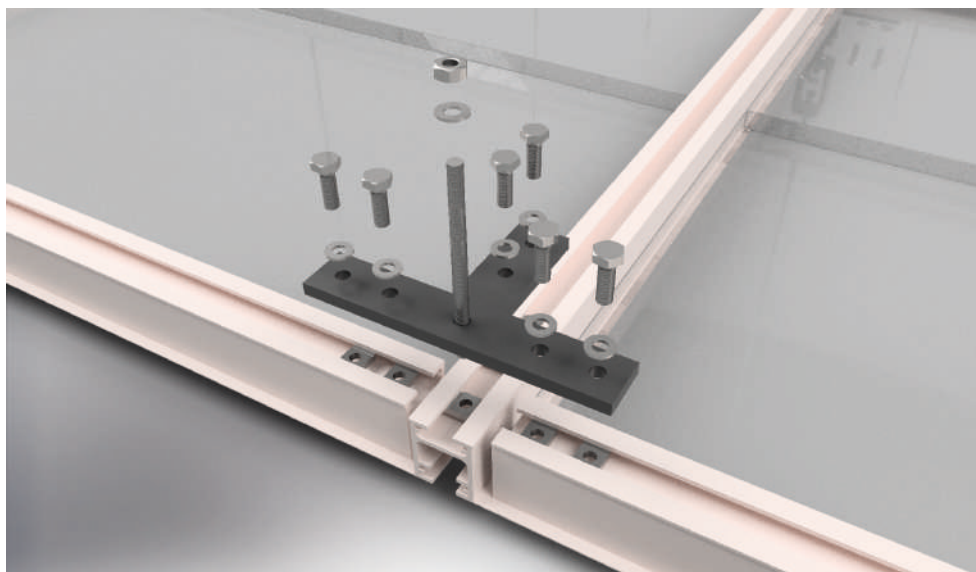
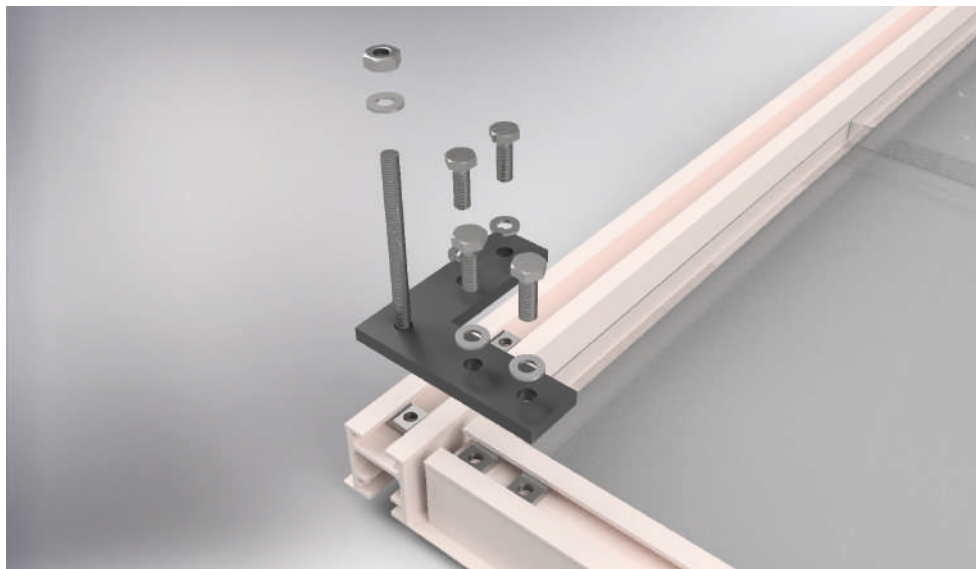
Single point load			kg @ 600mm		kg @ 300mm		kg @ 150mm		kg @ 75mm	
Span in mm	Deflection criteria	Vertical deflection mm (in)	Point load kg (kN)	Uniform load kg/m ² (kN/m ²)	Point load kg (kN)	Uniform load kg/m ² (kN/m ²)	Point load kg (kN)	Uniform load kg/m ² (kN/m ²)	Point load kg (kN)	Uniform load kg/m ² (kN/m ²)
1200	L/360	3.3 (0.13)	397 (3.89)	276 (2.7)	714 (7.0)	496 (4.86)	1616 (15.85)	1122 (11.01)	2131 (20.9)	1480 (14.5)



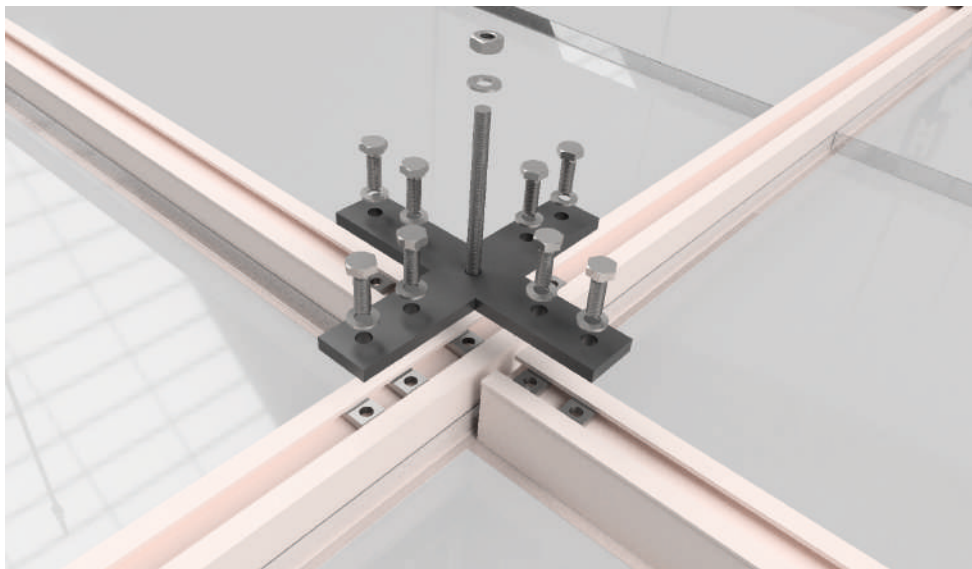


**Engineered
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Grid Connectors (L & T Types)

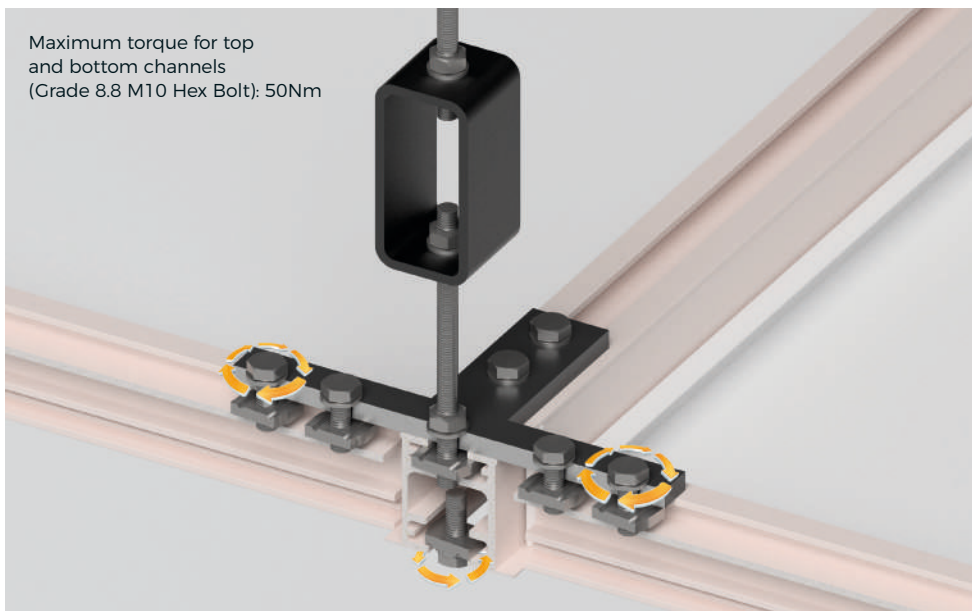


Grid Connectors (X Types)

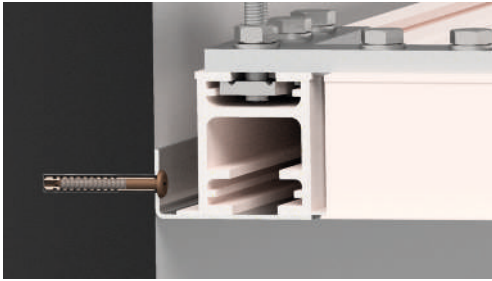


Torque Settings

Maximum torque for top
and bottom channels
(Grade 8.8 M10 Hex Bolt): 50Nm

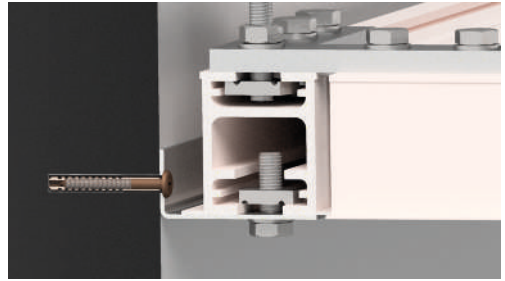


Perimeter Details



Floating Installation Detail

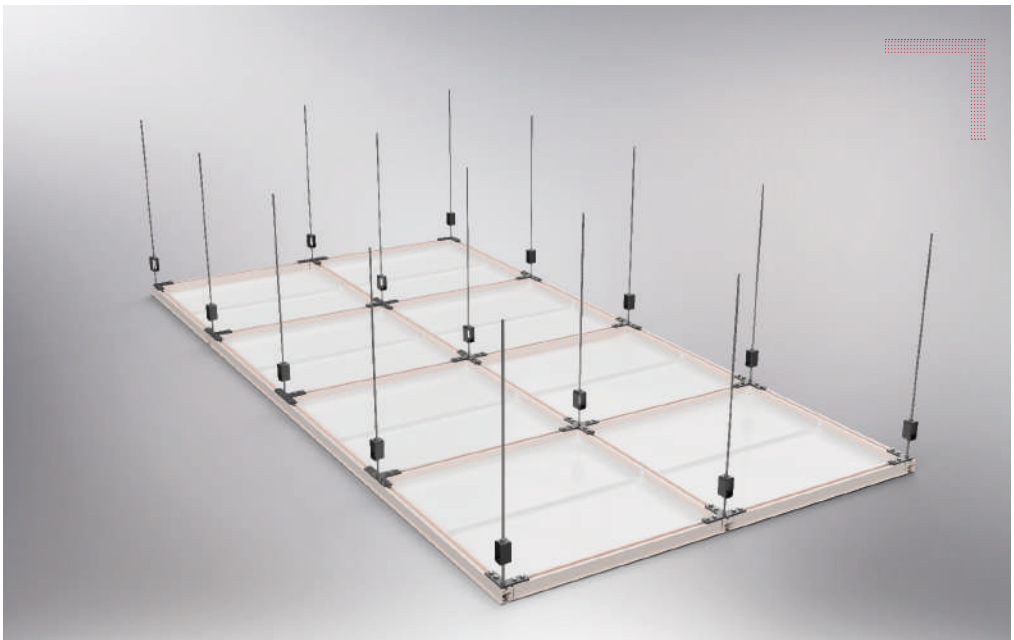
A floating perimeter installation uses the Perimeter profile in conjunction with angle iron. Angle irons can be cut on site and bolted directly to the building's wall with appropriate fasteners.



Fixed Installation Detail

A fixed perimeter installation uses the Perimeter profile in conjunction with angle iron which can be cut on site and bolted directly to building's wall with appropriate fasteners and fasten perimeter grid to angle iron using M10 bolt, washer and channel nut.

1200mm x 1200mm Hanger Configuration



Components for fixed and floating installation



Grid member



X Connector



T Connector



L Connector



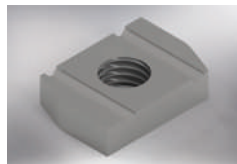
S-355 50 x 100mm RHS



M10x30 Hex Bolt



M10 Washer



M10 Channel Nut



M10x150 Threaded Rod



Panels Retaining Clip

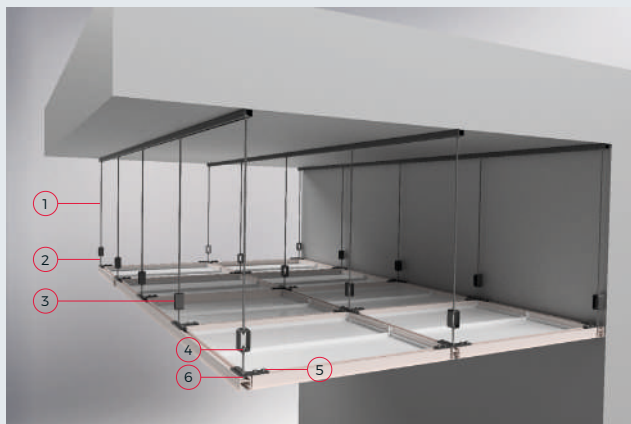


Perimeter Profile (Floating)



Perimeter Profile (Fixed)

Fixing to Building Structure



Fixings list

- 1: M10x1000mm Threaded Rod
(length may vary to suit requirements)
- 2: M10x150mm Threaded Rod
- 3: 50 x 100mm 8mm S-355 RHS
connector for M10x150mm
and M10x1000mm rods.
- 4: M10 Washer
- 5: M10 Hex Bolt
- 6: M10 Channel Nut



For further information about our Hyperion Ceiling System,
please contact us at: info@datalecltd.com