

**Hi-WALL**

[www.hi-span.com](http://www.hi-span.com)



## FRAMING SYSTEMS

have been developed to extend the current Hi-Span structural section range, providing a lightweight cold rolled system for almost any framing situation. Using Hi-Span's wealth of knowledge and experience as one of the UK's leading suppliers of cold rolled products, a range of framing sections has been developed

that can be used in a wide range of applications across most market sectors. With this, Hi-Span continue to offer a committed and personal customer service and design facility that has a focused aim to offer the most effective and comprehensive solution to each client's individual requirements.

**Design** With 50 years experience within the construction industry, Hi-Span has been at the forefront of design and development of cold rolled products. An experienced Research and Development team continually strive to improve and update the Hi-Span range of products and services. This, together with a fully comprehensive Technical Helpdesk of experienced designers on hand to answer your queries, Hi-Span offer its clients the most economic solutions to cold rolled design. Contact [technical@hi-span.com](mailto:technical@hi-span.com) or telephone 01953 603081 for further information from the Technical Helpdesk.

**Detailing & Ordering** The Hi-Wall system can be detailed using our standard detailing sheets, which are available upon request. Alternatively we have an in-house drawing office who can offer a detailing service. Quotations are available on an individual project basis. Please contact the sales team on [sales@hi-span.com](mailto:sales@hi-span.com) or telephone 01953 603081 for further information.

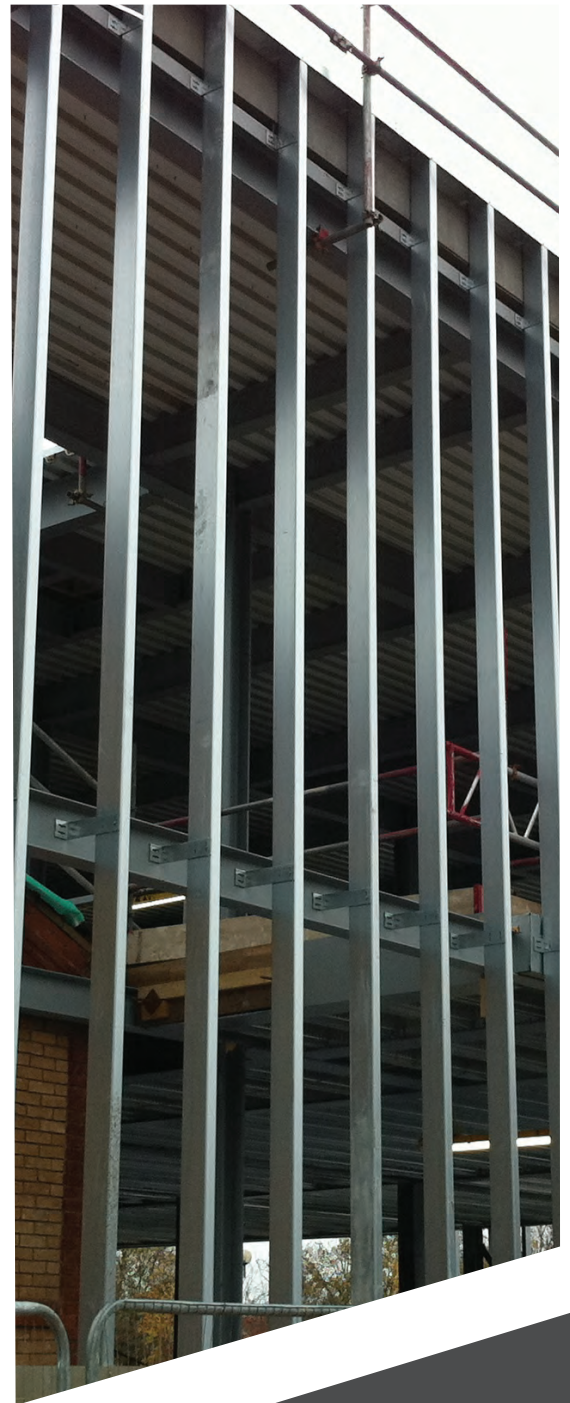
**Quality, Service & CE Marking** Hi-Span has earned a deserved reputation within the industry for its excellent personal service. Whilst satisfying the requirements of ISO 9001, Hi-Span Ltd has implemented Factory Production Control system B and the category of Execution Class 4 to apply due diligence to the necessary requirements of BS EN 1090-1, enabling Hi-Span Ltd to CE mark components for use in structures in compliance with the Construction Products Regulation.

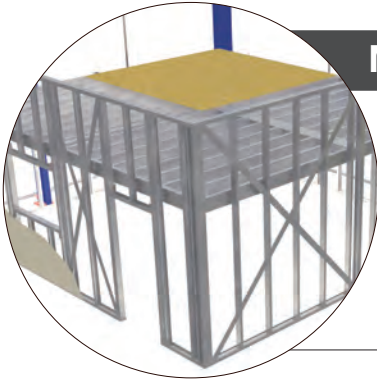
**Sustainability** As members of the BCSA Sustainability Charter, Hi Span is committed to supporting and furthering its sustainable development throughout all departments and business activities. Steel is 100% recyclable. Use of recycled steel does not compromise the quality of new steel produced from it. By addressing key issues such as CO2 emissions,

product design, recycling of unwanted or waste materials and prudent use of all resources, we intend to remain committed to effectively and responsibly managing our environmental and health and safety arrangements.



Typical Applications	3-4
Infill Panel Systems	5-6
Continuous Panel Systems	7-8
Partition Systems	9
Modular Systems	10
Typical Details	11-12
Performance Data	13
Fixings	14
Section Properties	15-16
Notes	17
Hi-Span	18

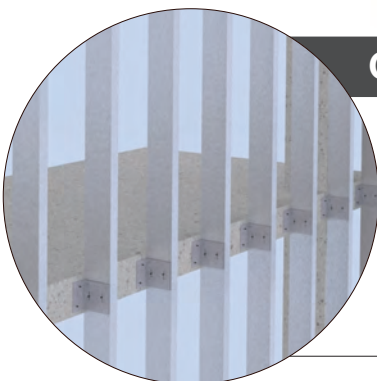
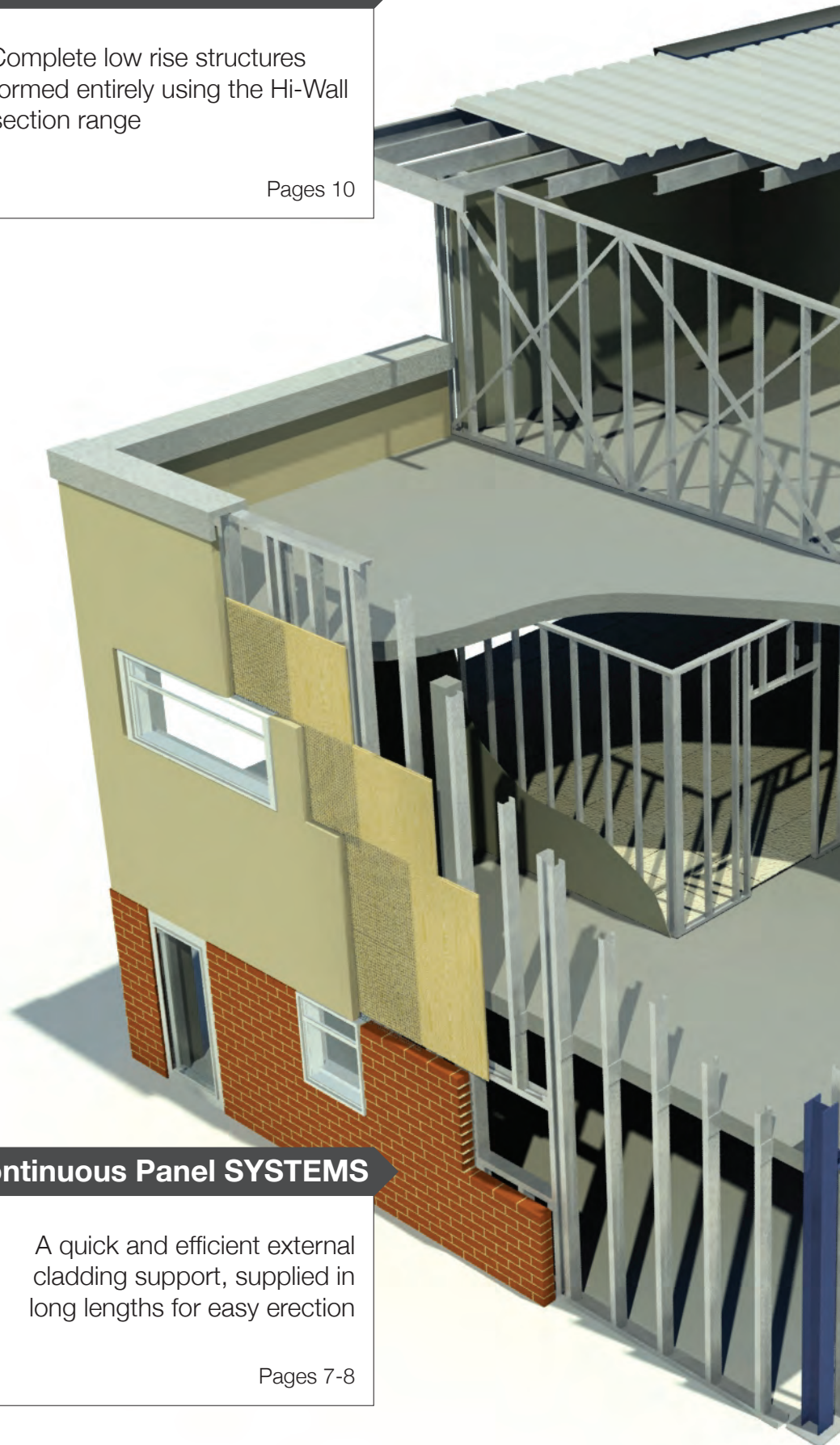




## Modular SYSTEMS

Complete low rise structures formed entirely using the Hi-Wall section range

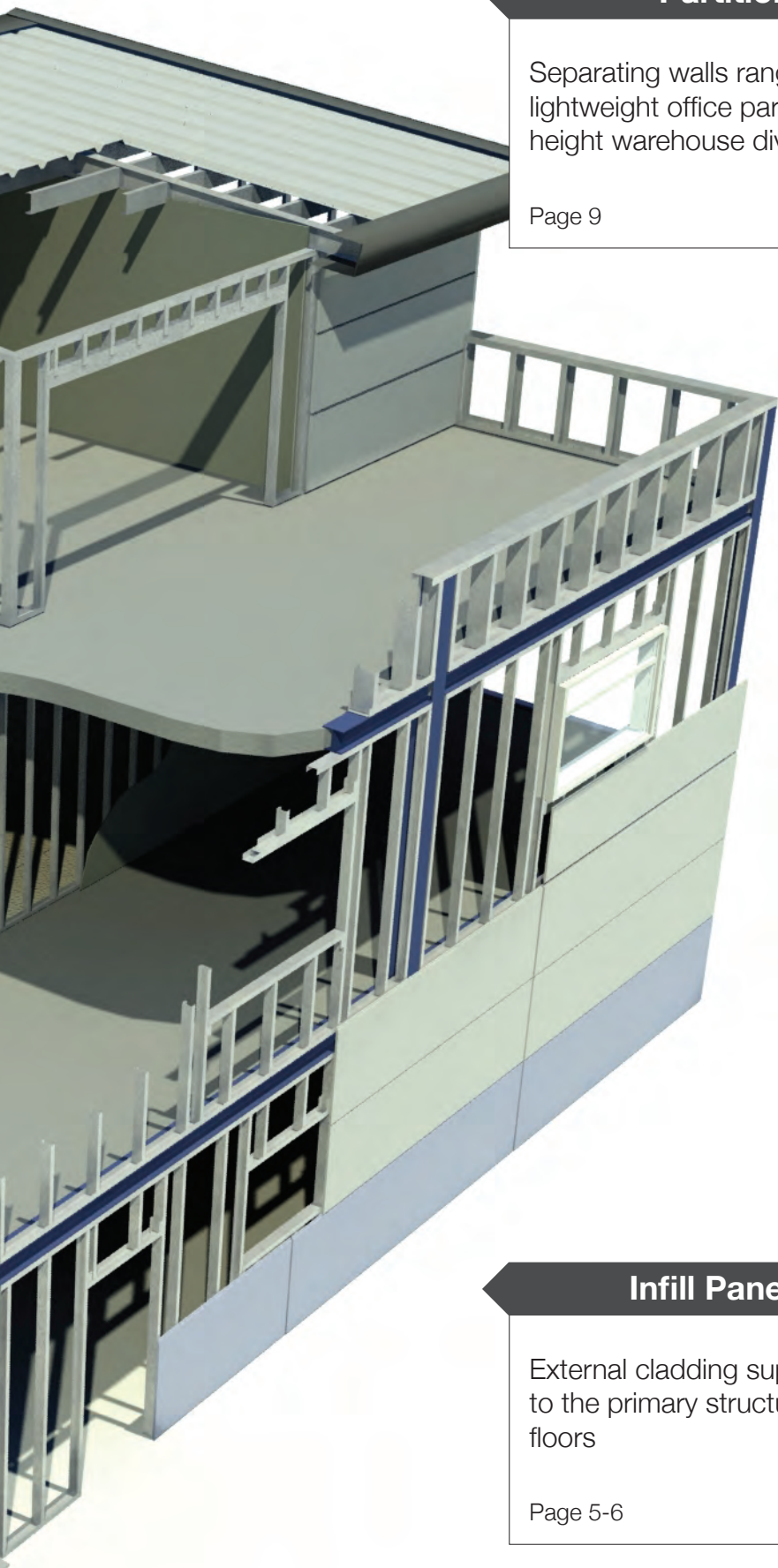
Pages 10



## Continuous Panel SYSTEMS

A quick and efficient external cladding support, supplied in long lengths for easy erection

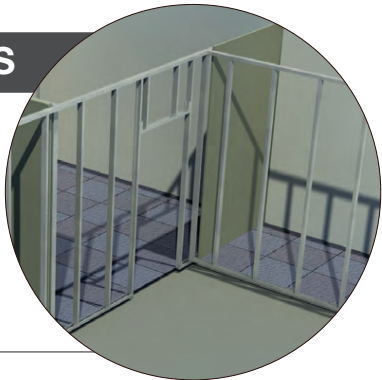
Pages 7-8



**Partition SYSTEMS**

Separating walls ranging from lightweight office partitions to full height warehouse divisions

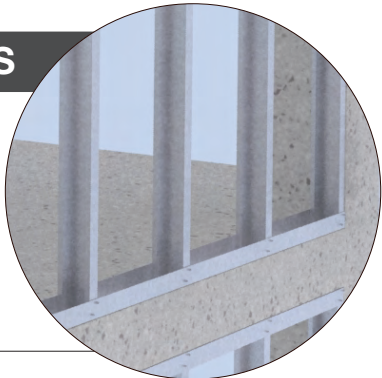
Page 9

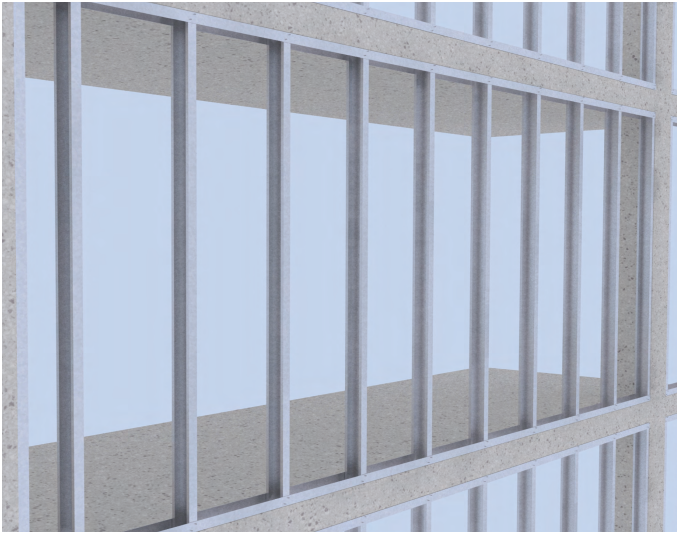


**Infill Panel SYSTEMS**

External cladding supports fixed to the primary structure between floors

Page 5-6





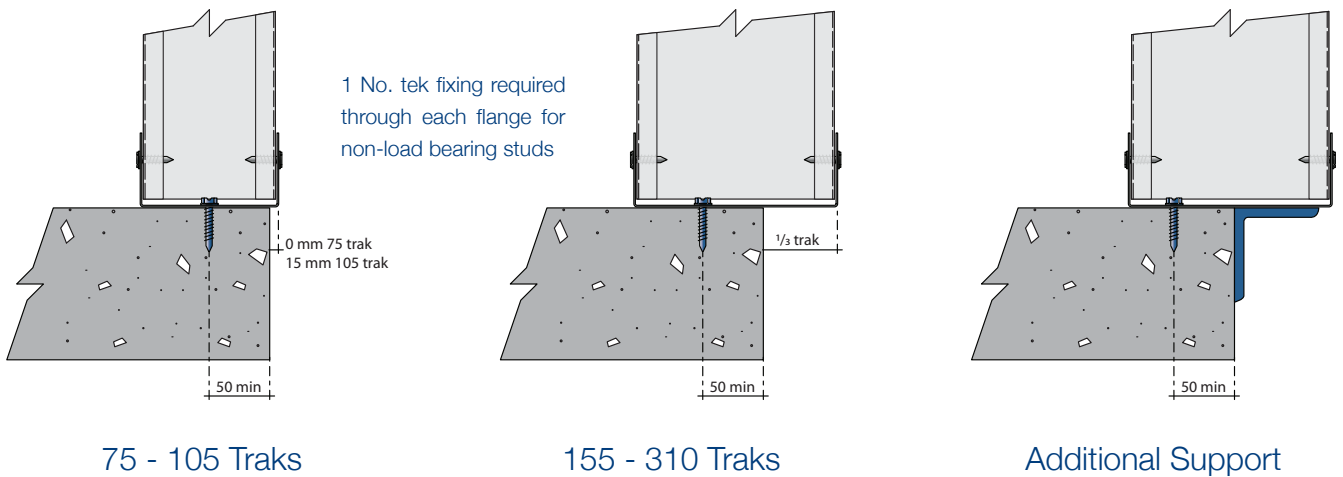
The **Infill Panel System** forms a secondary structure that typically sits between each floor of the structural frame. It can be used to support a wide range of external finishes as well as the internal lining of the building.

The system primarily consists of stud, trak and header sections which are held together using a range of tek fixings. Studs are typically positioned vertically at either 400mm or 600mm centres depending on the selected finishes. These are held in place at each end by a trak and a header section which are connected to the main frame.

There is no need for cleats or brackets as sections are fixed together through overlapping flanges with a self drilling tek screw. These sections can also be used to form openings and trimmings within the frame to accommodate doors, windows and other penetrations that may be required.

## Trak Arrangements

Trak members are typically thin gauge lip-less channel sections that are used as a base for almost all wall frames. In most infill framing systems the trak will be positioned along the edge of the slab/steelwork with frames spanning between floors allowing insulation and external finishes to run continuously outside the structural frame zones. Where required to achieve specific cladding zones or to accommodate any site tolerances, the trak member can be stepped in or overhang the edge of the slab as required. For large overhangs additional support may be required, please contact our Technical Department for further information. (For shot-fired fixings please confirm minimum edge distance with your supplier).

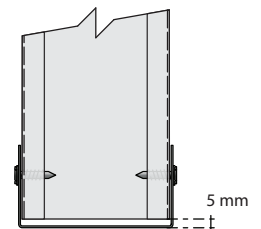


## Fixing Dimensions

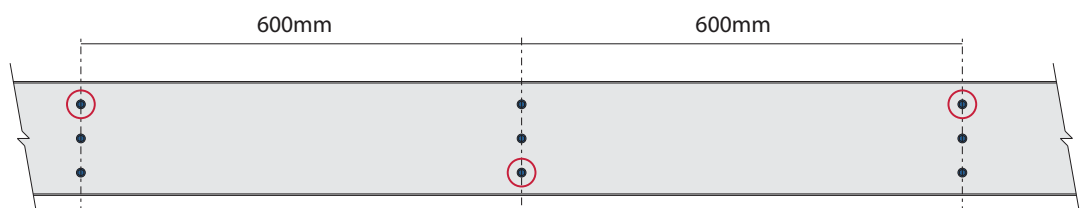
Traks are fixed in place using either concrete screws or direct shot fired fasteners. These should be positioned at max. 600mm centres in a staggered arrangement. When using concrete screws, 7mm clearance holes can be pre-punched upon request within the trak sections, as indicated below.

## Stud Clearance

When detailing stud sections we recommend a clearance dimension of 5mm from the trak to accommodate tolerances within the slab.



Central fixings used where edge distance dictates.



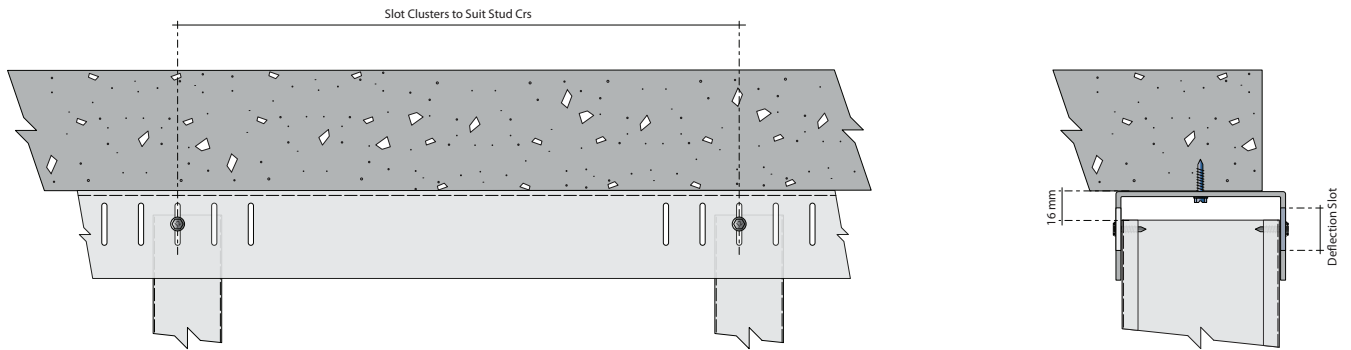
For Further Information on Fixings See Page 14

## Deflection Headers

In order to accommodate deflections in the main frame, infill panels require a deflection header member that allows the main frame to move without compressing the stud sections. The Hi-Wall deflection header incorporates a slotted connection which when combined with the correctly detailed stud clearance allows for suitable movement at the top of each panel avoiding damage caused by compression in the studs or damage to the attached finishes.

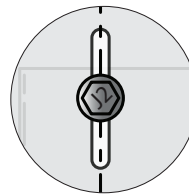
When using a deflection header, finishes may also require clearance gaps or movement joints to avoid compression. Please contact your cladding supplier or dry lining supplier for further details regarding your specific products.

Fixing locations for deflection headers are similar to that of the standard Trak Arrangements shown on the opposite page.



## Slot Clusters

Clusters of five slots are punched at regular intervals along the deflection header to suit client requirements. Typically standard bars are manufactured with slot clusters at spacings of 400mm / 600mm to suit stud centres, which are cut to fit on site. Alternatively, clusters can be punched at any position along the length of the bar upon receipt of detailed drawings.



## DH Fixings

Please ensure the tek fixing is positioned at the centre of the slot, to allow the full range of movement.



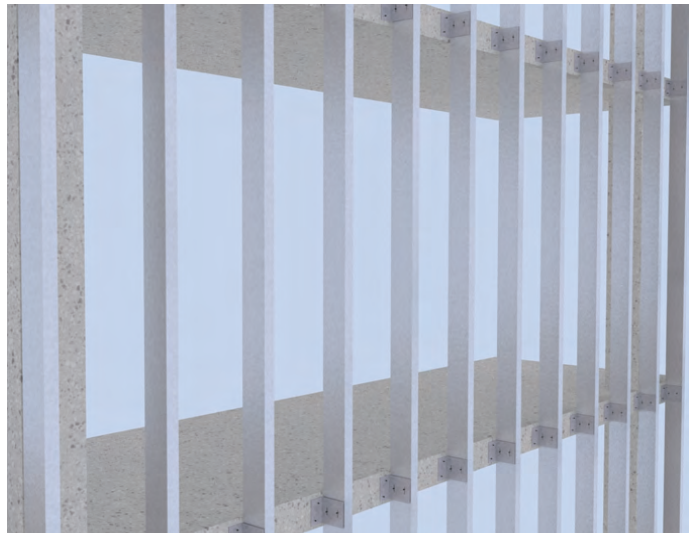
# Hi-WALL Continuous Panel Systems

The [Continuous Panel System](#) is used when vertical studs are positioned on the outside of the structural frame. The studs are connected via slotted cleats attached to the floor slabs which are in place to accommodate movement of the main frame. The base of the system requires support, usually through a trak member fixed to the floor slab or additional hot rolled member.

As with the infill panels the studs are designed to carry lateral wind loads, along with the axial load of the external cladding system.

This system can offer an increased speed of erection when using 150 deep sections and greater, as the studs can be supplied in up to 15m lengths.

Header and base rail sections can also be supplied as necessary to form a capping to the studs which may be needed as an additional fixing face for the cladding system.



## Parapet Overhangs

When using the continuous Hi-Wall system a parapet detail can easily be formed by continuing the stud sections past the finished roof level. Closing the ends of these studs using a trak member not only restrains the end of each stud but provides a fixing face for cladding panels and flashings.

For further details on cantilevering capabilities please consult our Technical Department.

## Continuity Traks

Where stud continuity between floors is required two trak members are used to create Continuity Traks. These members are fixed together back to back via pairs of tek screws through the webs creating a compound section.

The flanges of the formed section are then fixed to each of the finished rising studs, allowing the introduction of new studs above. This detail may be required a number of times on a multi-storey building.

It is recommended that this detail is only used at a maximum of 250mm above the support.

## Cleat Detailing

Cleats used within a continuous system are bespoke to each project in order to suit the specific section sizes and cladding zones required. This dictates that the cleats for each project need to be detailed individually to achieve the appropriate offsets required.

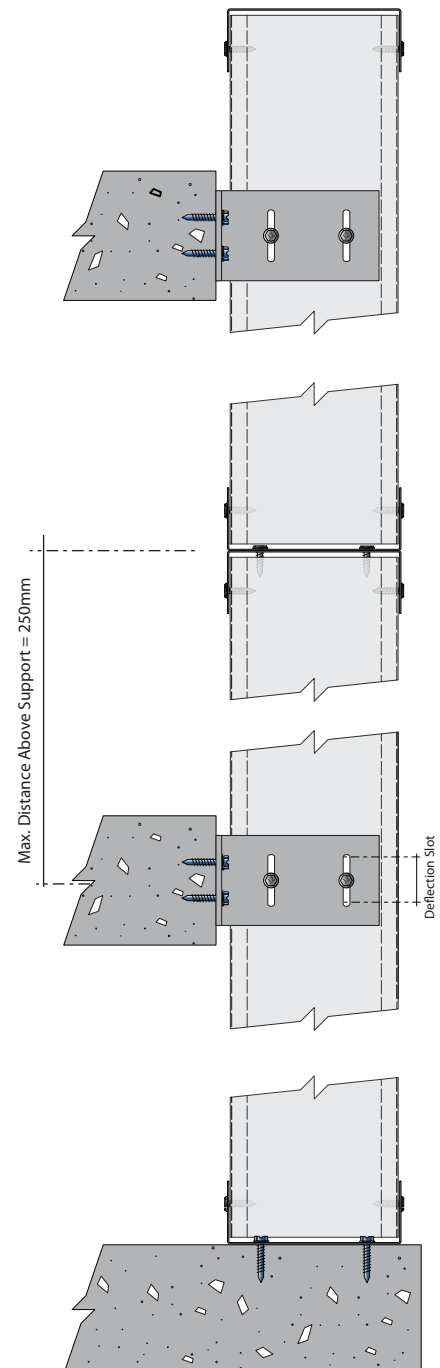
All cleats require vertical slots to accommodate movement of the primary structure. Horizontal slots can also be incorporated to aid alignment of the cleat when fixing to the primary structure.

(For cleat variations see page overleaf)

## Base Trak Supports

As this system sits outside the main frame consideration must be made about how the Base Trak will be fixed. Unless this is considered at an early stage it is not always possible to extend the ground floor slab for the trak to sit upon. In these situations an additional support angle running along the edge of the slab will need to be designed, or a purpose built brickwork plinth incorporated.

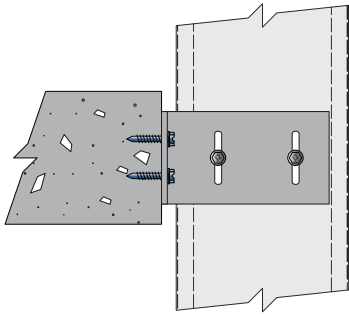
If none of these options are feasible or desired we would recommend the use of bespoke cleats. However as these cleats will need to support the frame and its finishes these often need to be stronger cleats with more structural fixing back to the main frame or slab. For further information please contact our Technical Department.



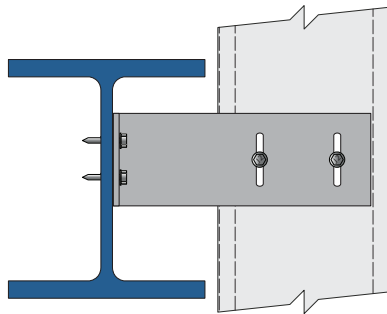


## Cleat Variations

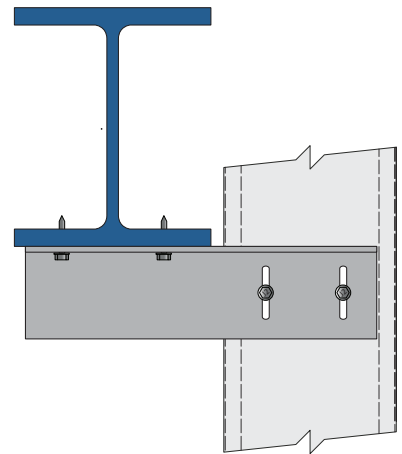
Cleats supporting Hi-Wall studs need to connect to a variety of primary structures. A degree of adjustment is required within the cleat design to enable accurate positioning of the cleats as they are typically installed on-site. Hi-Span offers a series which can be finely tuned to suit specific project requirements.



CW Cleat To Concrete Frame



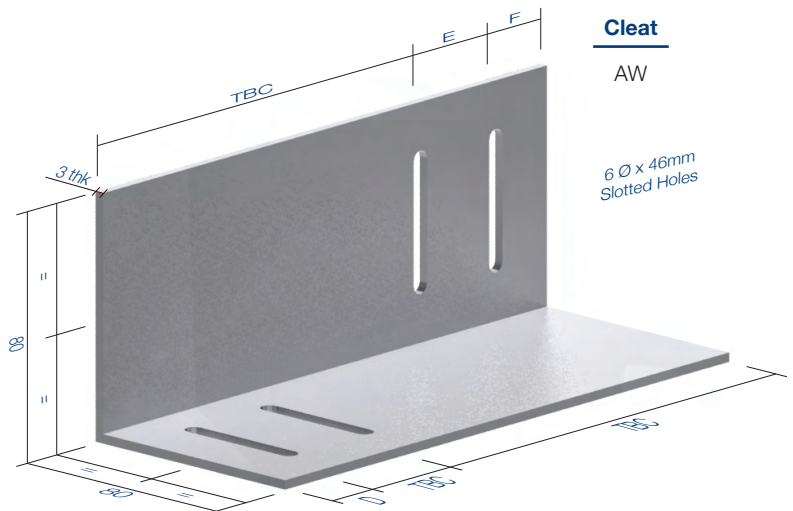
CW Cleat To Steel Frame



AW Cleat To Steel Frame



**Cleat**  
CW

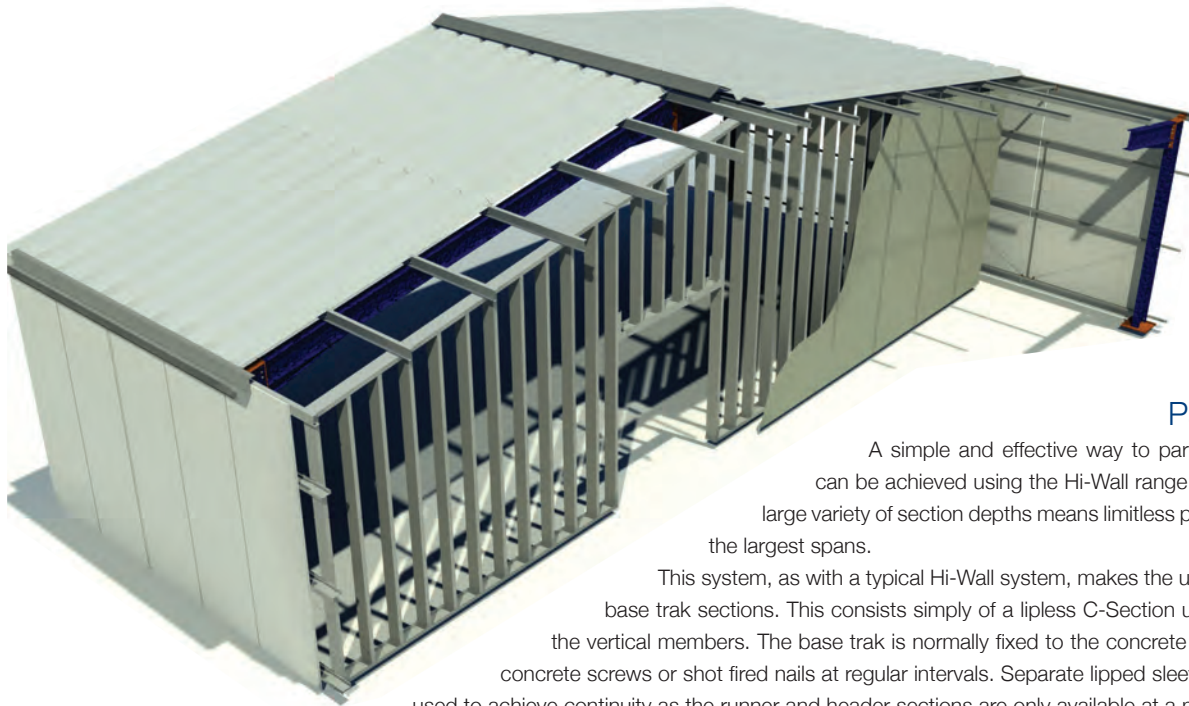


**Cleat**  
AW

Cleats can be supplied with blank ends to suit shot-fired fixings

Cleat	DIM A	DIM B	DIM C
CW70	30	30	17
CW100	40	50	20
CW150	40	100	20
CW205	40	150	20
CW255	40	200	20
CW305	40	250	20

Cleat	DIM D	DIM E	DIM F
AW50	17	30	17
AW100	20	50	20
AW150	20	100	20
AW205	20	150	20
AW255	20	200	20
AW305	20	250	20



## Partition Walls

A simple and effective way to partition a warehouse can be achieved using the Hi-Wall range of section sizes. A large variety of section depths means limitless possibilities for even the largest spans.

This system, as with a typical Hi-Wall system, makes the use of a header and base trak sections. This consists simply of a lipless C-Section used as a guide for the vertical members. The base trak is normally fixed to the concrete slab using pairs of concrete screws or shot fired nails at regular intervals. Separate lipped sleeve sections can be used to achieve continuity as the runner and header sections are only available at a maximum of 4.00m in length. The header member is tek-screwed directly to the intersection with the existing purlin member or to the structural frame itself, depending upon the position of the partition. Again sleeves are used to achieve continuity for the header member.

Unlike the previous Hi-Wall stud system, warehouse partitions are usually clad with horizontal/vertical spanning composite/trapezoidal cladding. Due to their inherent spanning capabilities (please confirm the maximum span using manufacturers guidance) it is possible to open up the vertical studs, reducing the overall number of members required. These are tek-screwed to the header and base trak members already positioned. The studs can be detailed back to back, toe to toe, or individually, depending upon design and detailing requirements.

Horizontal members can also be fitted between the posts. These serve as fixing positions for vertically spanning cladding, and laterally restrain the vertical studs. The horizontal members can be constructed from standard C-Channel sections using TC cleats either bolted or tek-screwed on site. An alternative to this would be using the WCP section, which is ideal as there is no need to separately fix the cleats to the end of the member, although this is reflected in the price. Where restraint only is needed standard Rigid-Fix Struts can be used. Please contact the Technical Department for further information on the use of WCP's and providing restraint in walls.

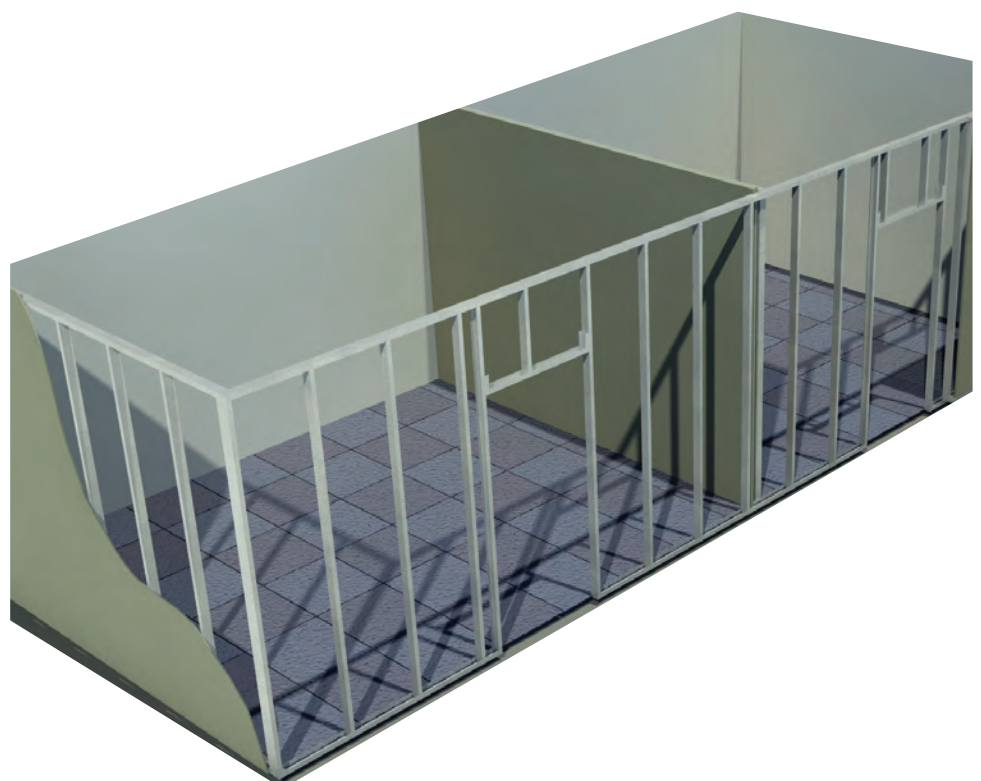
Hi-Span will provide these sections as blank lengths to be cut and fixed on site. As an alternative we have the capability to fully detail all of the members required, and provide you with a general arrangement drawing for ease of erection on site. We recommend that the client sources their own fixings.

## Internal Partitions

Using the same principles laid out in the infill panel system, internal partition walls can easily be designed and constructed. The varying array of section sizes across the entire Hi-Span range enables limitless possibilities for partitioning office spaces, industrial units, and even domestic uses.

The system is quick and easy to erect. To save time on site all sections can be pre-manufactured to detailed lengths to further enhance the speed of erection. By taking this approach windows and door positions can also be included saving fabrication time on site.

Both load bearing and non load bearing walls can be designed by our in-house Technical Department. Lintels to doors and windows can also be designed and incorporated directly within the wall depth.



## Modular Construction

Due to the Hi-Wall systems versatility entire low rise structures can be constructed. By employing similar principles laid out in the panel systems, load bearing wall panels and floor panels can be designed, detailed and manufactured.

Single storey load bearing walls create the external framework of the structure. A series of non load bearing and load bearing internal wall panels are positioned to form the inner framework. By applying flat bracing along the walls lateral stability is provided.

Non-lipped hanger members are fixed to the load bearing internal and external walls allowing construction of floor panels. These are manufactured to very high tolerances to ensure load transfer between floor panels and wall panels does not create any eccentric loading.

Details of all door and window openings should be provided prior to manufacture to ensure compound sections can be designed and positioned. At this stage it is good practice to include for all service holes as the stud sections can be pre-punched prior to delivery.

Site construction must be performed by competent erection sub contractors who are familiar with this type of construction. Hi-Span are happy to recommend suitable companies to carry out this work.

### Compound Floor Beams

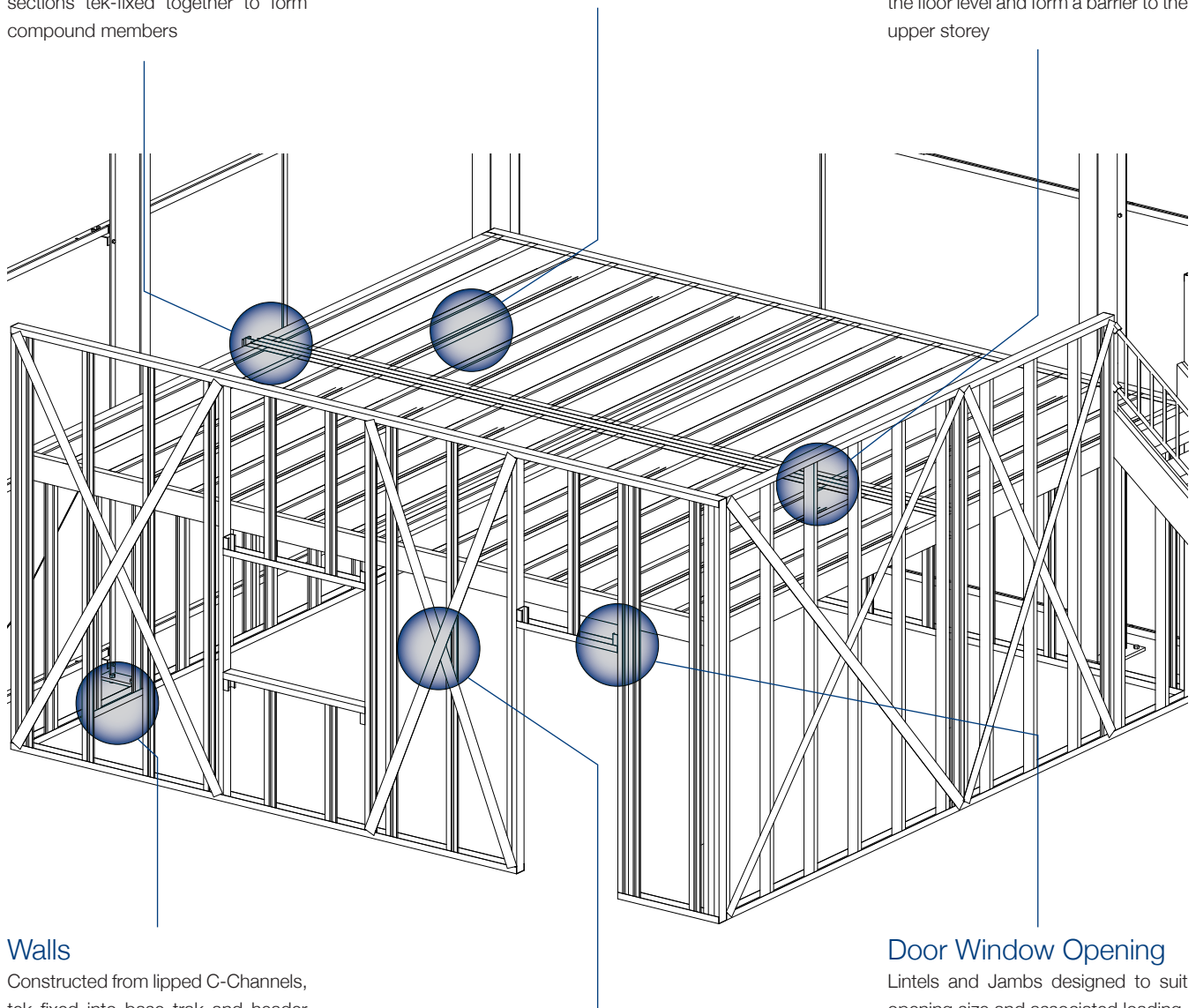
Multiple C-Channels and header sections tek-fixed together to form compound members

### Floor Beams

C-Channel floor beams fixed between header members to create floor panels

### Cantilever Barrier

Extended studs can cantilever beyond the floor level and form a barrier to the upper storey



### Walls

Constructed from lipped C-Channels, tek fixed into base trak and header sections

### Bracing

Flat brace members fixed to vertical studs, providing lateral stability to the structure

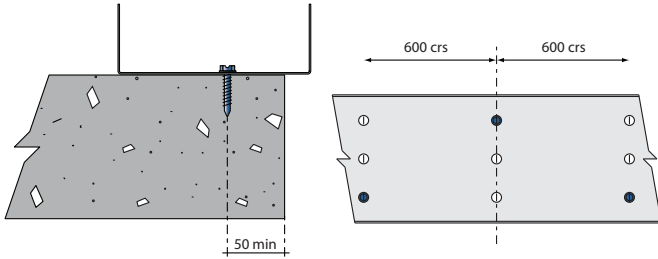
### Door Window Opening

Lintels and Jambs designed to suit opening size and associated loading

For Further Information on Hi-Wall Partition Systems and Modular Systems Please Contact our Technical Department

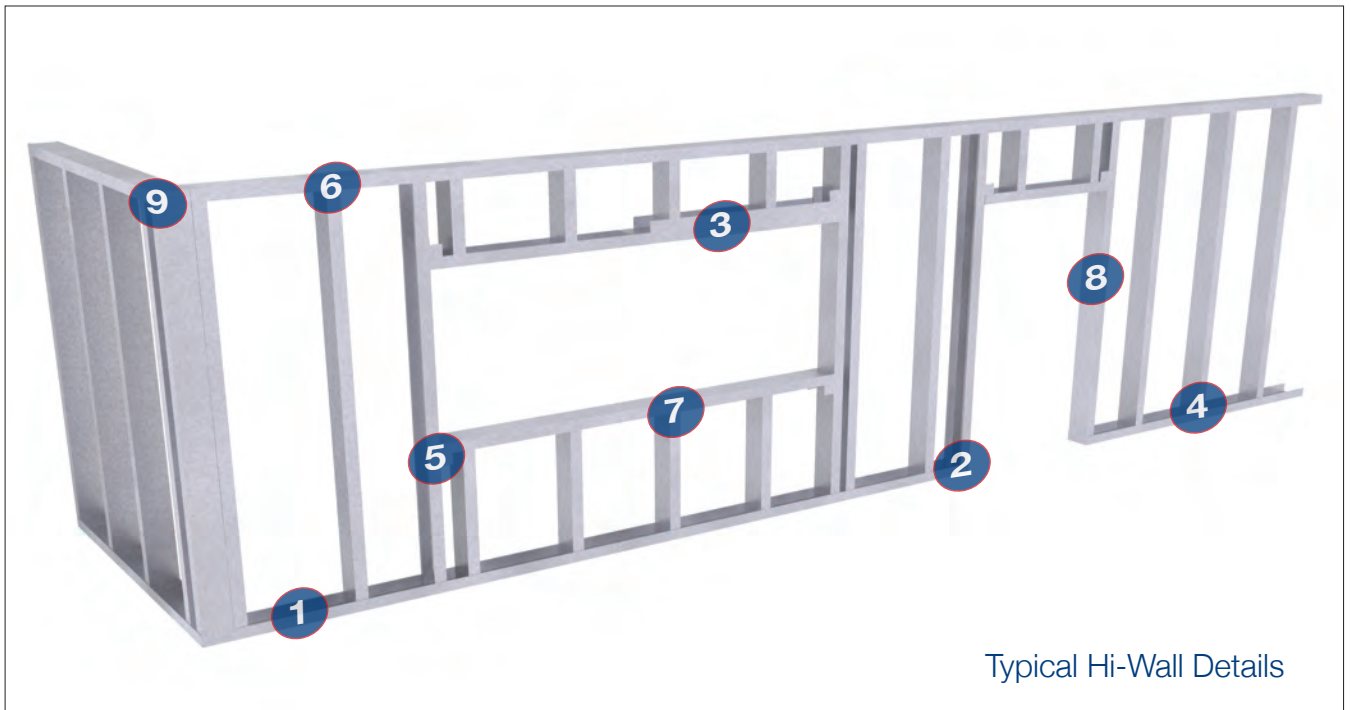
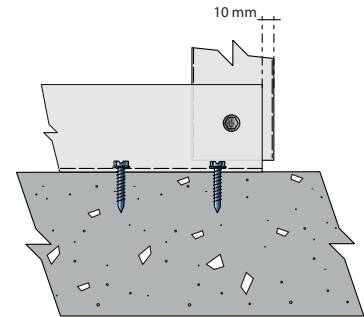
## 1: Base Trak Connection

- Available in up to 4.00m lengths as standard
- Fixings @ staggered 600mm crs
- Pre-punched holes upon request
- Minimum 50mm edge distance for screw fixings (this may vary for shot-fired fixings, please contact your supplier)



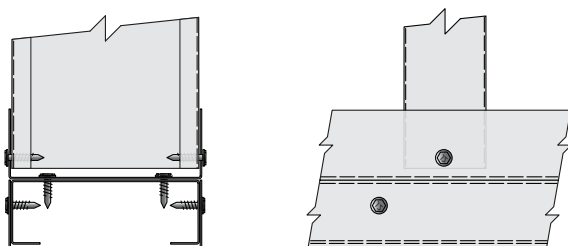
## 2: Base Trak End Detail

- Allow 10mm trak clearance for adjustment on site
- Additional fixings are recommended around openings



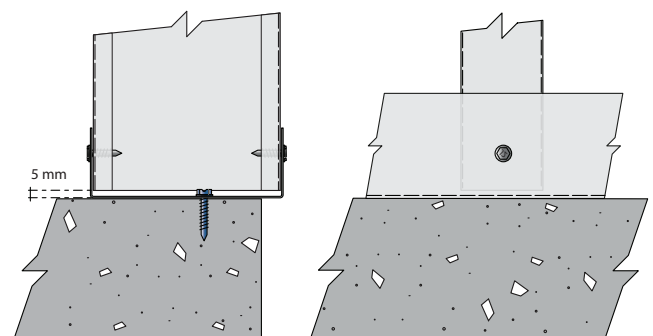
## 3: Window Lintel

- Compound sections can be used to form window lintels
- Web fixings typically in pairs @ 600crs
- Flange fixings typically staggered @ 600crs
- Compound sections can be manufactured in-house please contact our sales department for prices



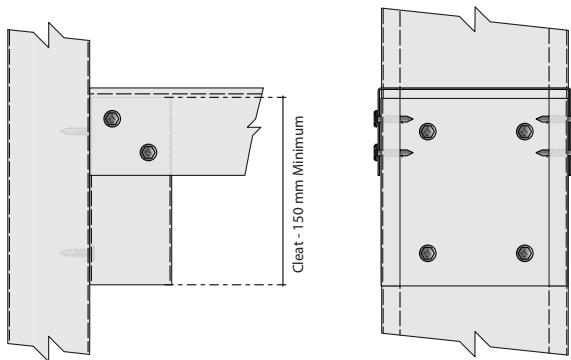
## 4: Trak / Stud Connection Detail

- Allow 5mm clearance between stud and trak web
- Typical studs require 1 No. tek fixing to each flange
- Please ensure vertical alignment prior to fixing



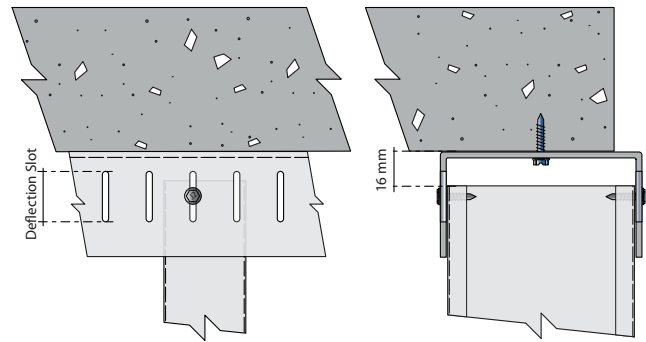
## 5: Typical Cleat Connection

- Cleats are formed from 150mm of stud section
- Cleats require a minimum of 4 no. fixings to the column and 4 no. fixings to the beam



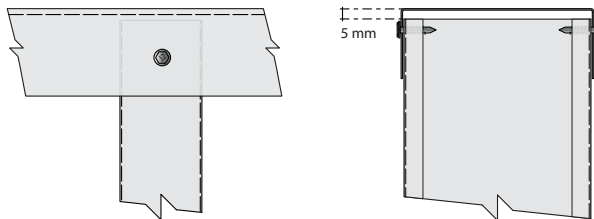
## 6: Deflection Head Detail

- Allow 16mm clearance between stud and deflection header
- Typical studs require 1 No. tek fixing to each flange
- Tek fixing must have a wide flange head to suit the 6mm slot



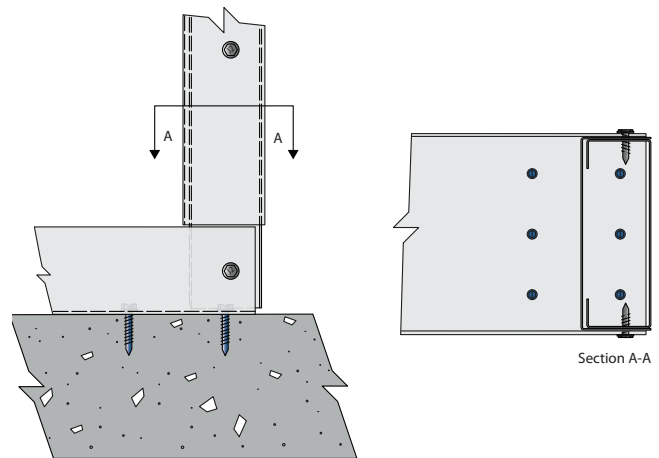
## 7: Fixed Head Connection

- Typical fixed head connections require 1 No. Tek to each flange
- Allow 5mm clearance between stud and header web
- Please ensure vertical alignment prior to fixing



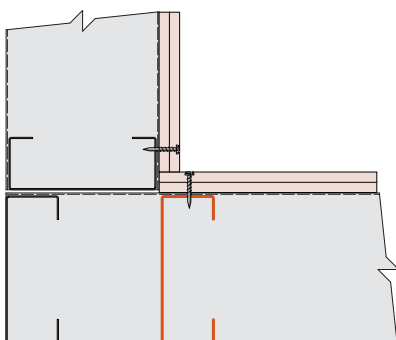
## 8: Door Jamb

- Compound members can be designed as suitable door jambs
- Additional trak fixings are recommended around openings



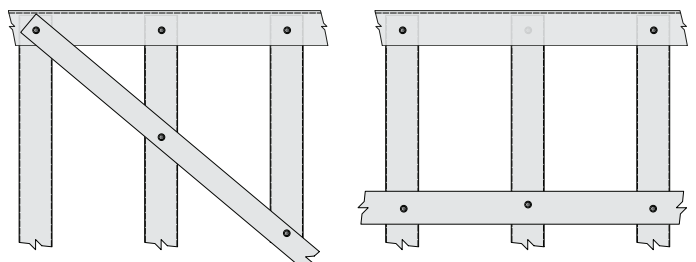
## 9: Panel Junctions

- Additional studs may be required at panel junctions to provide a fixing face for the internal finishes
- Bespoke panel joint sections are available, please contact our technical department for further details



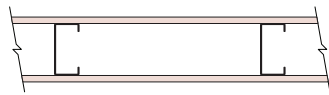
## 10: Flat Bracing

- Flat bracing must be tek fixed to each vertical stud
- Flat bracing can be used as a fixing face for plasterboard joints

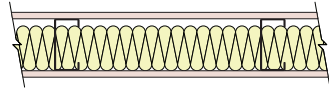


# PERFORMANCE DATA Acoustic Insulation & Fire Resistance

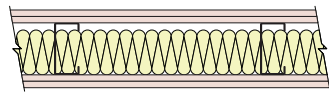
## Wall Construction



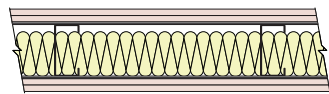
- 12.5mm plasterboard
- Hi-Wall Stud Sections
- 12.5mm plasterboard



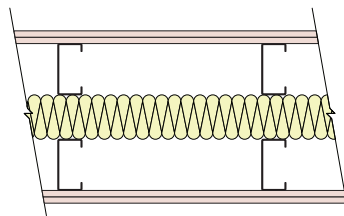
- 12.5mm plasterboard
- Hi-Wall Stud Sections with mineral wool between
- 12.5mm plasterboard



- 2 layers of 12.5mm plasterboard
- Hi-Wall Stud Sections with mineral wool between
- 2 layers of 12.5mm plasterboard



- 2 layers of 12.5mm plasterboard
- Resilient Bars
- Hi-Wall Stud Sections with mineral wool between
- Resilient Bars
- 2 layers of 12.5mm plasterboard



- 2 layers of 12.5mm plasterboard
- Hi-Wall Stud Sections
- Mineral wool between stud walls
- Hi-Wall Stud Sections
- 2 layers of 12.5mm plasterboard



Acoustic Insulation



Fire Resistance

$D_nT_w$

35 dB

30 min

45 dB

30 min

50 dB

30 min

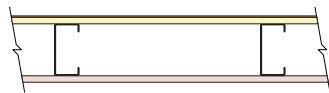
58-60 dB

30 min

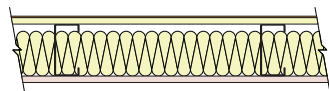
60-65 dB

30 min

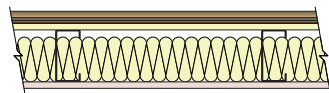
## Floor Construction



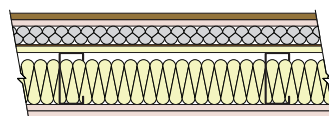
- 18mm Chipboard
- Hi-Span Channel Sections
- 12.5mm plasterboard



- 18mm Chipboard
- Hi-Span Channel Sections with 100mm mineral wool between channels
- 12.5mm plasterboard



- 19mm Cement Particle Board
- 10mm resilient layer (min)
- Chipboard, OSB or plywood
- Hi-Span Channel Sections with 100mm mineral wool between channels
- 2 layers 15mm plasterboard



- 18mm T&G Chipboard
- 19mm plasterboard
- 25-30mm mineral wool or glass wool
- Chipboard, OSB or plywood
- Hi-Span Channel Sections with 100mm mineral wool between channels
- Resilient Bars
- 2 layers 15mm plasterboard



Acoustic Insulation



Fire Resistance

$D_nT_w$

33 dB

30 min

42 dB

30 min

52 dB

60 min

57-60 dB

60 min

## Fire Rating

In order to maintain the required fire rating through openings in the wall construction Hilti offer the following products. Please contact the manufacturer for further details



**CFS-SL**

Firestop sleeve for cables



**CP 606**

Intumescent firestop filler







**CP 617**

Intumescent fire acoustic putty pads

## Hi-Wall Fixing Application Guide

The following table provides suitable fixing guidance for different Hi-Wall situations from our recommended manufacturers. Where project specific fixings have been designed, these will take precedence over the general guidance. All the following recommendations are to be read in conjunction with the fixing manufacturers literature, contact details below.

APPLICATION		EJOT Product Code	HILTI Product Code
General fixing for stud/traks/bracing. Combined thickness up to 3.00mm. Low profile head screw.		JT2 NH3-5.5 x 19	S-MD01ZW 5.5 x 19
General fixing for stud/traks/bracing. Combined thickness up to 6.00mm. Low profile hex-head.		JT2 LH6 5.5 x 22 (Requires 8mm Magnetic Hex. Drive Socket)	N/A
General fixing for stud/traks/bracing. Combined thickness up to 3.00mm. Low profile head screw.		LSCF 5.5 x 25	S-MD03ZW 5.5 x 25
General fixing for to stud/traks/bracing. Combined thickness 4.0mm up to 12.5mm. Hex head screw.		HS 5.5 x 38	S-MD05Z 5.5 X 40
General fixing for to stud/traks/bracing. Combined thickness 4.0mm up to 12.5mm. Low profile head screw.		HSCF 5.5 x 38	S-MD05ZW 5.5 x 40
Powder actuated nail to hot rolled steel or concrete - No maximum base thickness.		N/A	X-U 16 P8 X-U 16 MX
Single layer plasterboard to steel studs from 4.0mm up to 10.0mm steel build-up. Wafer head, wing tip.		WDHS 5.5 x 65	S-WD 15Z 5.5 X 65
Chipboard, ply or OSB boarding 18mm to 22mm thick, on to steel sections 0.9mm up to 3.0mm thick. Wafer head, wing tip.		TBF 4.8 x 45	S-WD 12Z 5.5 x 50
Fixing 0.5mm to 1.2mm steel to timber. Course twin thread. (Clearance hole required in steel above 0.9mm thick)		TS 6.3 x 45	N/A
Fixing Timber (Effective clamping thickness 30.0 - 55.0mm) to 4mm - 10.0mm steel.		WDHS 5.5 x 85	S-W15C 5.5 x 85
Fixing Timber (Effective clamping thickness 60.0 - 89.0mm) to 4mm - 10.0mm steel.		WDHS 5.5 x 119	S-W15C 5.5 x 119
Fixing 1.2mm - 4.0mm steel to concrete.		4 H 6.3 x 32 (Requires 5mm pilot hole)	HUS-H 7.5 x 35 (Requires 6mm pilot hole)



**EJOT U.K LTD**  
Hurricane Close  
Sherburn Enterprise Park  
Sherburn-in-Elmet  
Leeds LS25 6PB

Tel: 01977 68 70 40  
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Web: www.ejot.co.uk

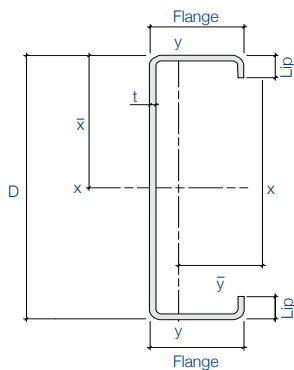


**HILTI (Gt. Britain) LIMITED**  
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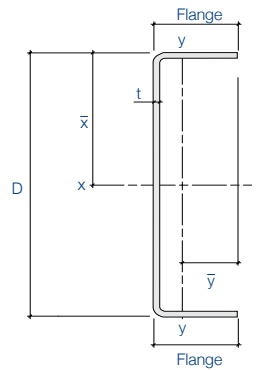
## Hi-Wall Sections

A specific range of lipped channels has been created to accommodate the varying wall thicknesses needed to suit architects requirements. To accompany this range a series of lipless header and base rails are available which contain the vertical stud members. Hi-Span also offer a range of members and accessories specifically developed for use in structural panels and to suit a full range of cladding finishes.



### Stud Manufacture Details

Series	Section Pressed or Rolled	Max. Length m
S70	Pressed	4.00
S100	Pressed	4.00
S150	Rolled	15.00
S205	Rolled	15.00
S255	Rolled	15.00
S305	Rolled	15.00



### Header Manufacture Details

Series	Section Pressed or Rolled	Max. Length m
H74	Pressed	4.00
H105	Pressed	4.00
H155	Pressed	4.00
H210	Pressed	4.00
H260	Pressed	4.00
H310	Pressed	4.00

## Section Dimensions

Section Ref.	Depth mm	Flange mm	Lip mm	t mm	Weight kg/m	Area cm <sup>2</sup>
S7012	70	35	10	1.2	1.41	1.80
S7015	70	35	10	1.5	1.74	2.22
S10012	100	47	15	1.2	2.01	2.56
S10015	100	47	15	1.5	2.50	3.18
S10020	100	47	15	2.0	3.28	4.18
S15012	150	66	15	1.2	2.84	3.61
S15015	150	66	15	1.5	3.47	4.43
S15020	150	66	15	2.0	4.63	5.90
S20512	205	66	15	1.2	3.35	4.27
S20515	205	66	15	1.5	4.14	5.28
S20520	205	66	15	2.0	5.53	7.04
S25516	255	80	18	1.6	5.46	6.96
S25520	255	80	18	2.0	6.83	8.70
S30520	305	90	21	2.0	8.02	10.22
S30529	305	90	21	2.9	11.50	14.65

## Section Properties

Ixx cm <sup>4</sup>	Zxx cm <sup>3</sup>	Iyy cm <sup>4</sup>	Zyy cm <sup>3</sup>	Rxx cm	Ryy cm	x bar mm	y bar mm	Zxc cm <sup>3</sup>	Mcxx kNm	Mcyy kNm
14.86	4.25	3.22	1.41	2.83	1.32	35	22.94	4.24	1.246	0.442
18.26	5.22	3.92	1.71	2.81	1.30	35	22.94	5.22	1.602	0.549
42.68	8.54	8.55	2.77	4.03	1.80	50	30.81	8.37	2.326	0.847
52.72	10.54	10.47	3.40	4.02	1.79	50	30.81	10.51	3.031	1.061
68.88	13.78	13.51	4.39	3.99	1.77	50	30.79	13.77	4.193	1.405
134.70	17.96	21.91	4.80	6.04	2.44	75	45.66	16.39	4.16	1.411
166.95	22.26	26.99	5.91	6.03	2.42	75	45.65	21.44	5.751	1.784
219.45	29.26	35.09	7.69	6.01	2.40	75	45.63	29.10	8.253	2.389
277.19	27.04	24.09	4.95	7.99	2.36	102.5	48.65	25.21	5.765	1.452
344.03	33.56	29.67	6.10	7.97	2.34	102.5	48.63	32.64	8.089	1.833
453.27	44.22	38.59	7.94	7.95	2.32	102.5	48.60	44.05	11.796	2.453
696.59	54.63	57.10	9.63	9.90	2.83	127.5	59.31	52.04	12.235	2.853
864.03	67.77	70.21	11.84	9.88	2.82	127.5	59.28	66.71	16.888	3.592
1432.01	93.90	103.94	15.45	11.75	3.16	152.5	67.30	91.30	21.825	4.625
2045.63	134.14	145.86	21.70	11.70	3.12	152.5	67.22	133.87	35.672	6.728

## Section Dimensions

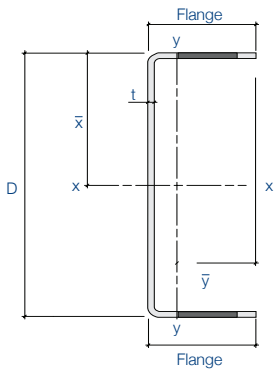
Section Ref.	Depth mm	Flange mm	t mm	Weight kg/m	Area cm <sup>2</sup>
H7412	74	40	1.2	1.41	1.80
H7415	74	40	1.5	1.74	2.22
H10512	105	56	1.2	2.01	2.56
H10515	105	56	1.5	2.50	3.18
H10520	105	56	2.0	3.28	4.18
H15512	155	75	1.2	2.84	3.61
H15515	155	75	1.5	3.47	4.43
H15520	155	75	2.0	4.63	5.90
H21012	210	75	1.2	3.35	4.27
H21015	210	75	1.5	4.14	5.28
H21020	210	75	2.0	5.53	7.04
H26016	260	80	1.6	5.15	6.56
H26020	260	80	2.0	6.44	8.20
H31016	310	65	1.6	5.46	6.96
H31020	310	65	2.0	6.83	8.70

## Section Properties

Ixx cm <sup>4</sup>	Zxx cm <sup>3</sup>	Iyy cm <sup>4</sup>	Zyy cm <sup>3</sup>	Rxx cm	Ryy cm	x bar mm	y bar mm	Zxc cm <sup>3</sup>	Mcxx kNm	Mcyy kNm
16.39	4.43	2.93	1.00	3.00	1.27	37	29.32	3.28	0.951	0.306
20.24	5.47	3.61	1.23	2.99	1.26	37	29.24	4.30	1.282	0.384
47.00	8.95	8.23	2.00	4.27	1.79	52.5	41.25	6.18	1.695	0.592
58.25	11.10	10.17	2.47	4.26	1.78	52.5	41.18	8.01	2.282	0.749
76.57	14.58	13.31	3.24	4.24	1.77	52.5	41.06	11.31	3.350	1.005
141.98	18.32	20.60	3.66	6.25	2.38	77.5	56.25	12.23	3.062	1.050
176.43	22.76	25.53	4.54	6.24	2.37	77.5	56.18	15.71	4.167	1.338
232.93	30.06	33.56	5.99	6.22	2.36	77.5	56.05	21.90	6.141	1.812
285.65	27.21	22.44	2.80	8.16	2.29	105	59.05	19.02	4.287	1.088
355.39	33.85	27.81	4.72	8.15	2.28	105	58.96	24.34	5.960	1.386
470.15	44.78	36.56	6.22	8.13	2.27	105	58.83	33.74	8.932	1.875
653.11	50.24	37.40	5.82	9.90	2.37	130	64.30	36.94	8.587	1.707
812.09	62.47	46.26	7.21	9.88	2.36	130	64.19	47.43	11.887	2.160
879.59	56.75	21.64	3.94	11.22	1.76	155	54.88	45.34	9.773	1.177
1094.11	70.59	26.70	4.88	11.20	1.75	155	54.75	58.15	13.782	1.481

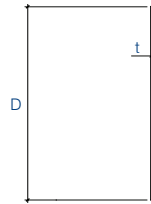
For Further Information on Fixings See Page 14





## Deflection Header Manufacture Details

Series	Section Pressed or Rolled	Max. Length m
H74	Pressed	4.00
H105	Pressed	4.00
H155	Pressed	4.00
H210	Pressed	4.00
H260	Pressed	4.00
H310	Pressed	4.00



## Brace Section Dimensions

Series	Depth mm	t mm
B50	50	1.00
B100	100	1.00

Flat strip sections are used as lateral and diagonal bracing, for further information please contact the Hi-Span Technical Department

## Section Dimensions

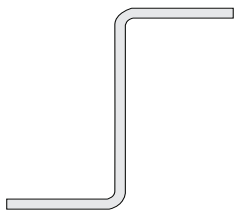
Section Ref.	Depth mm	Flange mm	t mm	Weight kg/m	Area cm <sup>2</sup>
DH7520	75	52	2.0	2.68	3.42
DH10520	105	56	2.0	3.28	4.18
DH15520	155	75	2.0	4.63	5.90
DH21020	210	75	2.0	5.53	7.04
DH26020	260	80	2.0	6.44	8.20
DH31020	310	65	2.0	6.83	8.70

## Section Properties

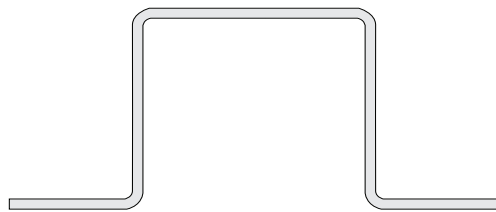
Ixx cm <sup>4</sup>	Zxx cm <sup>3</sup>	Iyy cm <sup>4</sup>	Zyy cm <sup>3</sup>	Rxx cm	Ryy cm	x bar mm	y bar mm	Zxc cm <sup>3</sup>	Mcxx kNm	Mcyy kNm
33.67	8.98	9.75	2.68	3.10	1.67	37.5	36.43	7.00	2.144	0.837
76.57	14.58	13.31	3.24	4.24	1.77	52.5	41.06	11.31	3.350	1.005
232.93	30.06	33.56	5.99	6.22	2.36	77.5	56.05	21.90	6.141	1.812
470.15	44.78	36.56	6.22	8.13	2.27	105	58.83	33.74	8.932	1.875
812.09	62.47	46.26	7.21	9.88	2.36	130	64.19	47.43	11.887	2.160
1094.11	70.59	26.70	4.88	11.20	1.75	155	54.75	58.15	13.782	1.481

## BeSpoke Sections

In addition to the standard Hi-Wall range of sections we have the capability of blanking and punching wide coil (1.0 – 3.2mm gauges) and press-braking bespoke section profiles up to 8.000m in length to specific customer orders. On all sections, hole patterns can be punched to order and can be of varying sizes depending on the specification. Blanking cut lengths from wide coil is a very cost effective method of production and as a result we can offer very competitive prices on these products. Please contact the Sales team on sales@hi-span.com or telephone 01953 603081 for further information.



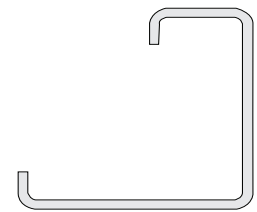
Z Hangers



Top Hats



Angles



Panel Joints

- Thickness** The maximum thickness of rolled sections is 3.2mm
- Maximum Lengths** We are able to manufacture and handle bars up to 15m long, and brake press sections up to 4m long
- Non-Standard Punch Lines** Available to suit your requirements
- Non-Standard Holing** By contacting our Sales Office for your requirements
- Notching** Additional charges for this service will be quoted on request
- Special Finishes** When an additional protective system is required to

suit certain environmental and climatic conditions, please contact our Technical Sales Department for further details

**Material Specification** Manufactured from hot dipped Prime Bright Spangle Galvanised Slit Coil to BS EN 10346 and min.S280GD + Z275 N-A-C giving a guaranteed minimum yield strength of 280 N/mm<sup>2</sup>. Cold rolled steel sections supplied in accordance with BS EN 10162. All items manufactured in accordance with the requirements of ISO 9001 and BS EN 1090-1 and Company Safety Standards.



MANUFACTURING HIGH QUALITY COLD ROLLED PRODUCTS SINCE 1962





## Hi-SPAN Cold Rolled Products Technical Manual

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Sleeved, Butted, Heavy End Bay and Unrestrained Purlin Systems

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Sleeved & Butted Rail Systems, plus Horizontal Cladding Support Systems

### EAVES BEAM SYSTEMS

A Full Range of Eaves Beams to compliment the Purlin & Rail Range

### CHANNEL SYSTEMS

Mezzanine Floor Beam Systems, Ceiling Supports, Brickwork Restraints, Door & Window Trimmers



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