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CI/SfB (49) Xh2	

November 2012

ASHGRID™

spacer support system

SAFE-LOC™ - SECURE BY DESIGN

www.ashandlacy.com

ASH•LACY

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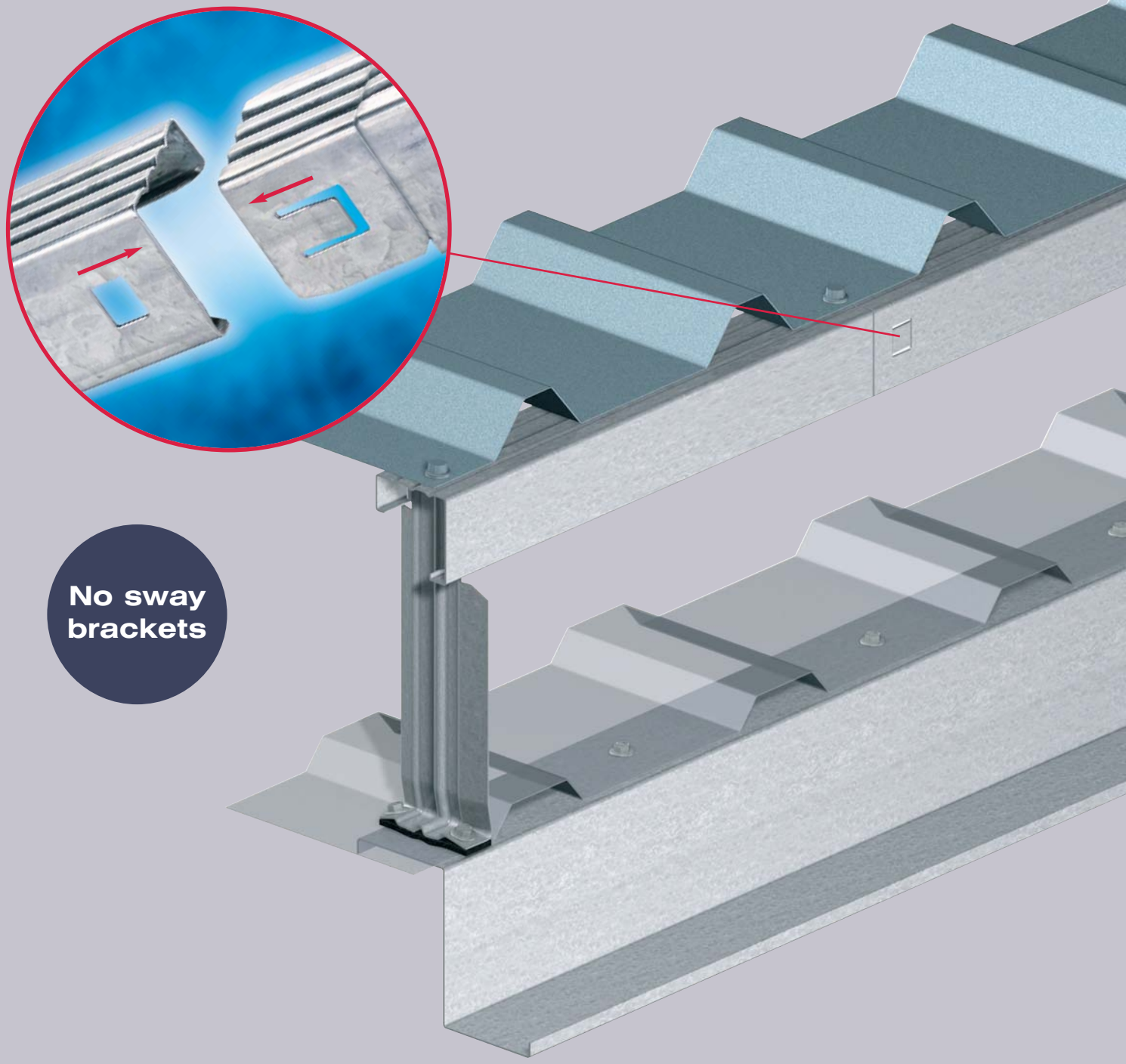
SAFE-LOC™ - SECURE BY DESIGN

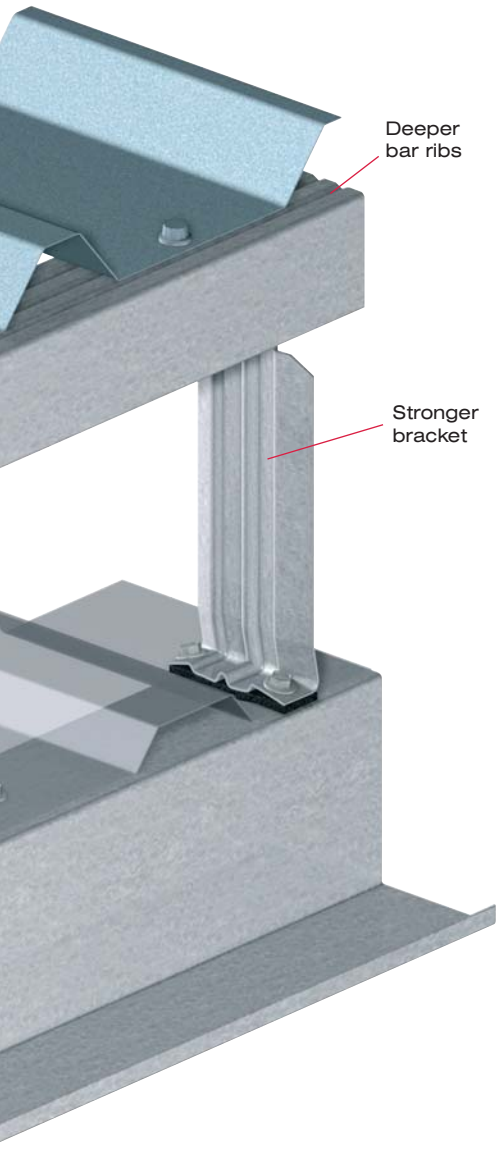


No sway brackets

Introduction

As part of our programme of continuous innovation, Ash & Lacy introduce the new high performance Ashgrid bar and brackets incorporating the unique Safe-Loc™ feature (patent applied for). Designed to meet the ever-increasing demands from Building Regulations whilst at the same time making installation more efficient and safer for contractors on site.

All spacer support systems are at risk during the installation stage when they are not restrained by the sheeting and are subjected to forces from foot traffic, temporary loading and high winds.



Accurate, close fitting and reliable bar connections are also required to ensure the stability of any spacer support system during construction with some systems even having to rely upon screw fixings to prevent their bars from separating**.

The new Ashgrid Safe-Loc™ spacer support system addresses these issues through a combination of innovative design features which improve system stability, safety and ease of construction, reducing installation time and costs when compared with other spacer support systems.

The enhanced AG40 spigot design with its new innovative Safe-Loc™ feature (patent applied for) provides stability and peace of mind at the click of a tab. This prevents the Ashgrid bars from separating during the installation process ensuring safe, precise gauging as well as quicker installation. The AG40 bar is widely acknowledged to be of superior quality and is produced to exact engineering tolerances. With the spigots pushed home in one quick and easy action, the Safe-Loc™ tab engages, providing the added security benefit of an automatic inter-lock between the bars every time. Once engaged the bar ends cannot be accidentally or unintentionally separated ensuring the system remains stable and secure during the critical installation stages. Nevertheless, the joints can be 'unlocked' if the need arises.

The enhanced bracket design with deep ribs further increases the performance of the Ashgrid system, removing the need for anti-sway brackets at construction depths below 250mm*. Ashgrid Safe-Loc provides more benefits to the installer with fewer components, faster installation times and reduced system costs.

The time proven 'twist-lock' feature of the Ashgrid brackets still remains as popular today as always. With its easy slide and twist action from the bar ends, or engage and twist to fit at any point along the bar. The fitting of the brackets is simplicity itself and the quickest in the marketplace, easy from first to last with a minimum of force required, reducing the risk of cut hands. The brackets are also just as easy to disengage and re-position if necessary.

An ongoing programme of research and development into the system, the first engineered spacer support system in the UK, has ensured Ashgrid has remained an optimum solution for a wide range of roofing applications.

- New Safe-Loc™ spigots – fast, secure and safe bar joints
- No need for bar end fixings – saving time and cost
- Raises the standards for spacer support systems
- Maximum spigot efficiency is always achieved and a consistent module maintained
- Allows continuous load transfer throughout the bar run
- New high performance brackets with deeper ribs for improved structural performance
- No requirement for anti-sway brackets below 250mm* construction depth
- Quick, easy and safe insertion of brackets from the side or from the bar ends
- Brackets can be easily repositioned if required
- Deep ribbed bar, ensuring optimum fixing efficiency for the top sheet
- High fixing torque and increased pull-out strengths achieved
- Full range of roof, wall cladding and firewall solutions
- Comprehensive and friendly technical backup with nationwide distribution

** In line forces can be transmitted through the joint without the need for screw fasteners.

* For exceptional site loading conditions and for heights above 250mm advice on performance should be sought from the Ash & Lacy Technical Department.

Installation

With the advent of ADL1&2 of the Building Regulations and the requirement for deeper thermal cavities within built-up systems, it has become increasingly important that careful consideration be given to the safety and security of the installers and the spacer support system, in particular during the construction phases.

A roofing system is at its greatest risk during the installation stage when it is not restrained by the top sheeting and is subjected to loading from foot traffic, temporary loading and heavy sheet packs. This combined with drag forces from high winds tends to compound these problems further.

With construction depths increasingly exceeding 200mm and with the ongoing need to improve installation efficiency and system performance, Ashgrid AG40 has been further enhanced to satisfy these increasingly demanding requirements.

Construction depths up to and including 250mm

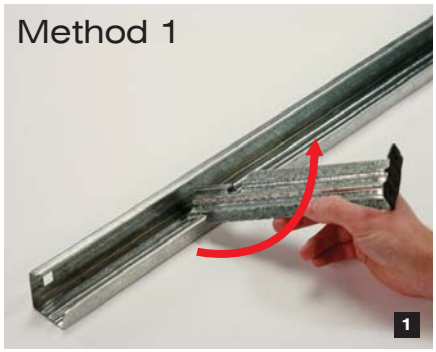
All spacer support systems will be exposed to in-line sway forces during their installation. To counter this, the stability of AG40 has been further enhanced through improvements in bracket design and the introduction of the Safe-Loc™ spigots. These designed-in features perform each and every time, providing peace of mind without reliance on extra, time consuming bar-end fixings and anti-sway brackets.

For cavity depths up to and including 250mm no additional sway control measures need to be employed on the new Ashgrid AG40.

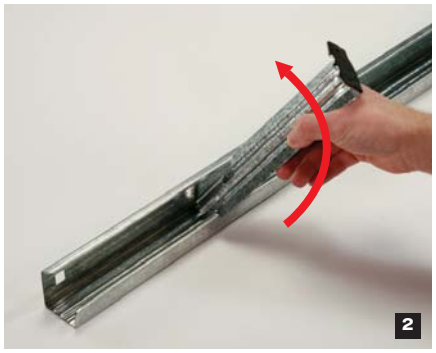
For exceptional site loading conditions and for heights above 250mm advice on performance should be sought from the Ash & Lacy Technical Department.

Choice of installation methods to suit personal preference and site conditions

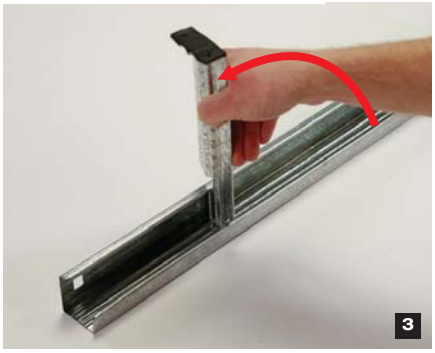
Method 1



1. Lay bar on roof deck and offer the small flange of the bracket to the small flange of the bar.

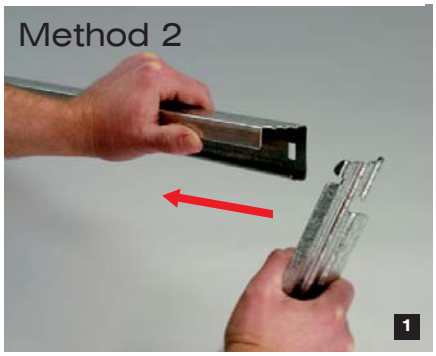


2. Tilt and rotate bracket backwards at desired fixing position.

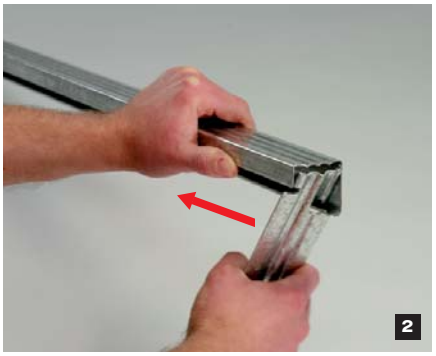


3. Twist bracket and snap into position at 90° to bar.

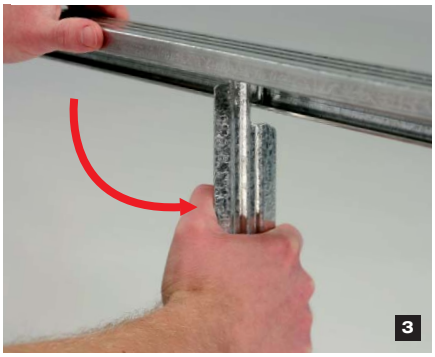
Method 2



1. Offer the bracket to the bar at an angle from the non-spigot end.



2. Slide brackets along the bar to the desired fixing positions.



3. Snap each bracket upright to lock into position at 90° to the bar.

Brackets may be repositioned by reversing this action and sliding along the bar as in steps 1 & 2.

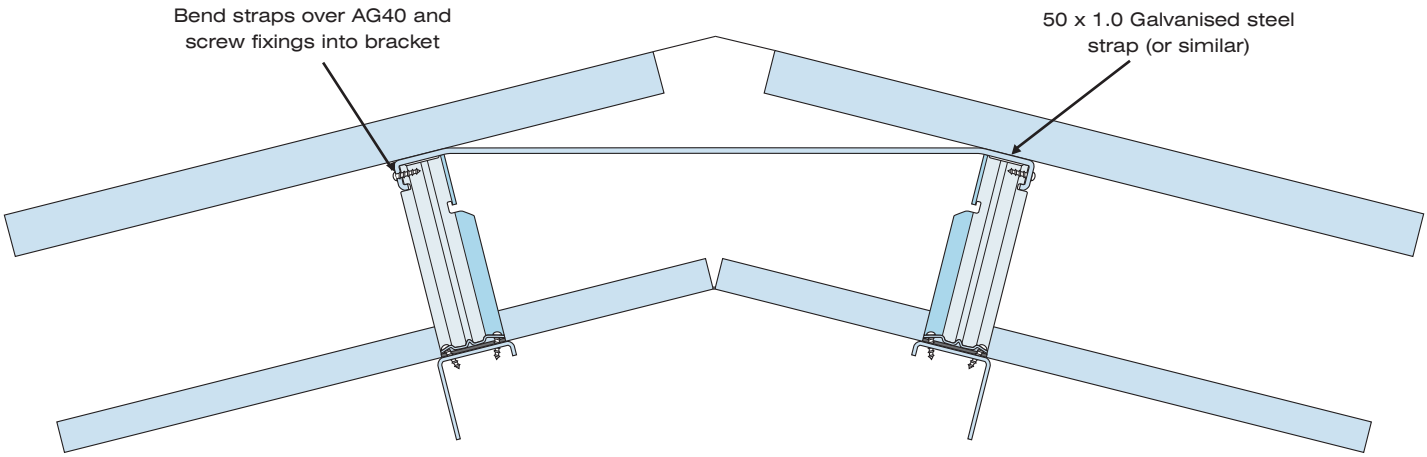
4. Making certain there is a bracket within 100mm of a spigot end, install additional brackets to match the liner module up to 1m centres maximum. (Bracket centres may need to be reduced in areas of high wind suction or heavy snow loading).

5. Engage the open end of the bar onto the Safe-Loc™ spigot and push firmly until the tab clicks into position. To release, simply depress the tab with a sharp object such as a screwdriver.

6. Continue as above for quick, safe and secure installation.

Brackets should be fixed to the roof deck using two Ashfix LS25 fasteners inclined and ensuring that brackets do not twist in the bar.

Pitched roofs



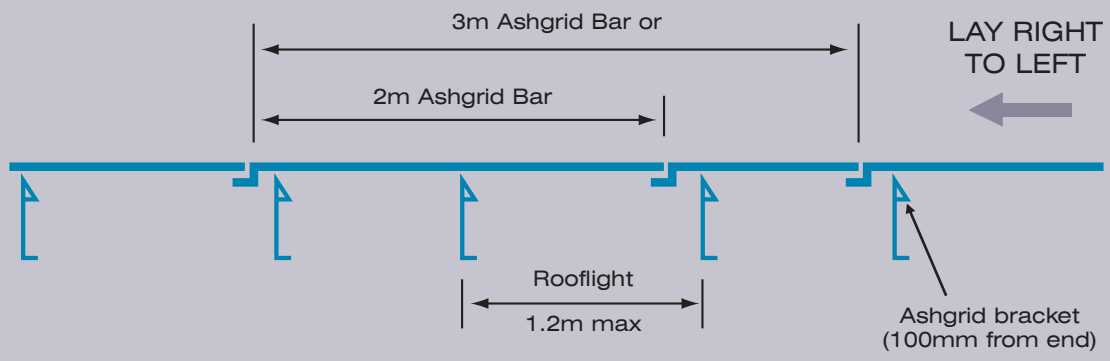
With roof constructions ever increasing in depth there is a tendency for the support system to rotate down the slope by the action of the roof loading. To prevent this, the ridge brackets must be fully tied together as illustrated. Screw fixing the end and side laps of the roof sheet ensures continuity. This enables each roof slope to act as a stress plate hanging from the fixed ridge detail and reduces any downslope movement.

The steel strap should be bent over and around the AG40 bar and fixed to the small flange using two screw fixings.

To eliminate any out of balance forces it may be prudent to sheet both slopes in unison, gradually working up to the ridge detail.

Note
It is preferable that the Ashgrid brackets either side of the ridge are installed in line.

Rooflights (ADL1&2)



A rooflight build-up conforming with the requirements of ADL 1&2 requires the Ashgrid brackets to be installed either side of the module, resulting in the Ashgrid bar spanning 1200mm as shown above. To maintain the structural adequacy of the bar, we would recommend either a 2m or 3m length of bar positively fixed with the new Safe-Loc™ feature to provide the continuity required over the central rooflight zone.

In areas of high wind suction loads or heavy drifting snow the bar is further reinforced with a top hat 40 section. This sits tightly over the Ashgrid AG40 for a distance of 1500mm over this bay and is screwed to the bar at 500mm centres along its length.

For further information, please contact our technical department.

LOAD SPAN TABLE FOR ASHGRID AG40 ROOFLIGHT DETAIL

	Bracket centres along bar (m)	Direction of loading	Purlin Centres (m)					
			1.0	1.2	1.4	1.6	1.8	2.0
			Loading in kN/m2					
AG40 BAR	1.0	Download	2.23	1.86	1.59	1.39	1.24	1.12
		Uplift	**2.55**	**2.13**	**1.82**	**1.59**	**1.42**	**1.28**
	1.1	Download	1.84	1.54	1.32	1.15	1.02	0.92
		Uplift	**2.11**	**1.76**	**1.51**	**1.32**	**1.17**	**1.05**
	1.2	Download	1.55	1.29	1.11	0.97	0.86	0.77
		Uplift	**1.77**	**1.48**	**1.26**	**1.11**	**0.98**	**0.89**
AG40 BAR WITH TH40	1.0	Download	3.00	2.50	2.14	1.88	1.67	1.50
		Uplift	**3.00**	**2.50**	**2.14**	**1.88**	**1.67**	**1.50**
	1.1	Download	2.73	2.27	1.95	1.70	1.52	1.36
		Uplift	**2.73**	**2.27**	**1.95**	**1.70**	**1.52**	**1.36**
	1.2	Download	2.50	2.08	1.79	1.56	1.39	1.25
		Uplift	**2.50**	**2.08**	**1.79**	**1.56**	**1.39**	**1.25**

Notes

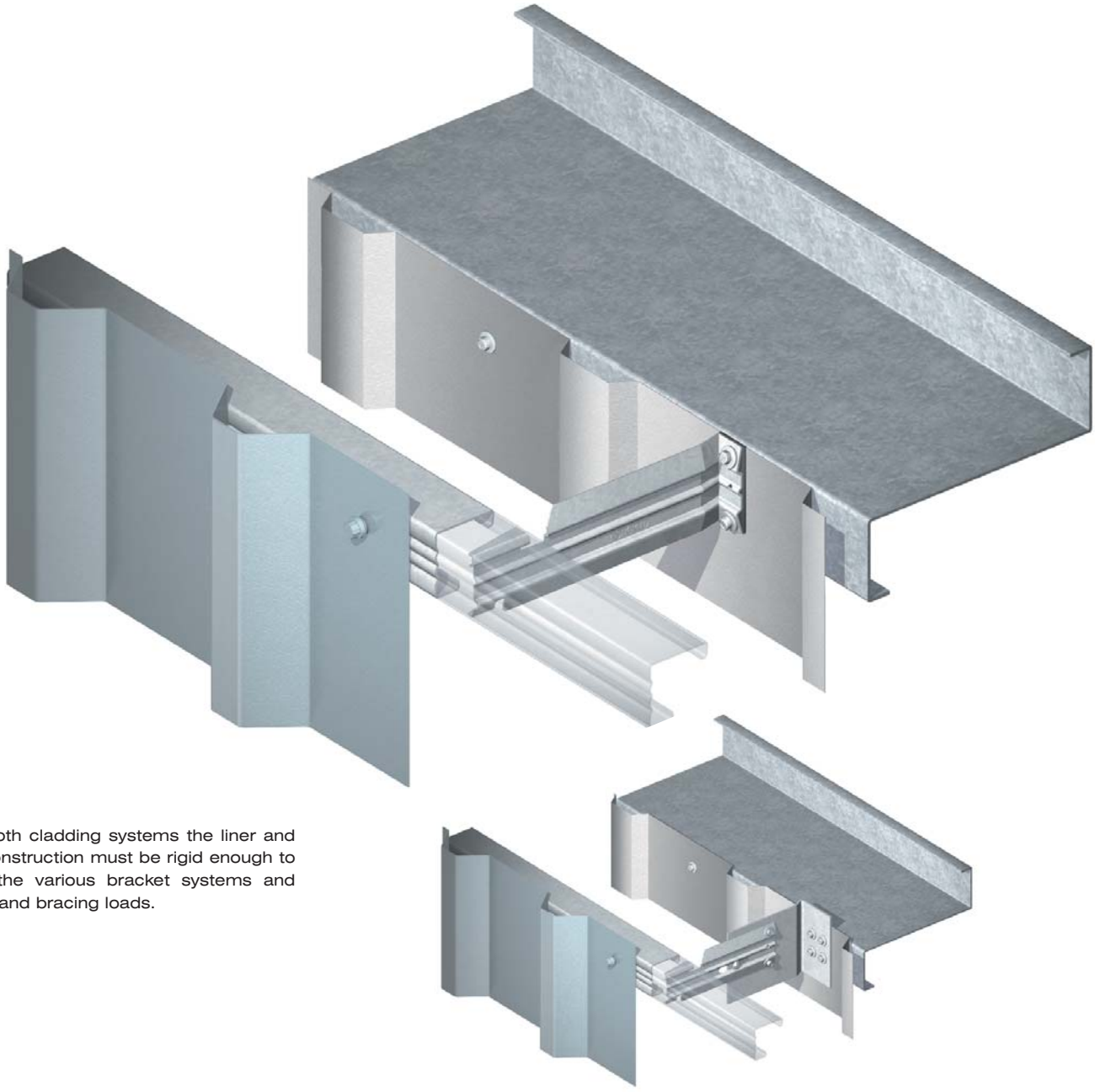
- All loads are working loads
- Steel based on Z35 material
- Download deflection = span/200
- Figures limited to a bar/bracket connection load of 3kN
- Pull-out of screws into purlin assumed to be 3kN
- Ultimate bending stress is based on a load factor of 1.6 for download and 1.4 for uplift

Vertical sheeting

For bracket depths of up to 200mm the standard Ashgrid system may be used with brackets at 1m centres maximum with reduced centres in high wind suction zones if necessary.

For constructions over 200mm in depth please refer to the Ash & Lacy Technical department for guidance. For deeper constructions or where higher vertical loads are expected, the AF-adjustable system may be used which incorporates a substantial 3mm thick AJC galvanised cleat bolted to a slotted ABF bracket offering sideways adjustment.

When the depth is set the ABF bracket is fixed with 2 No. screws to create a rigid connection. The full assembly is fixed back to the rail flange with 4 No. fixings. Using different components a range may be achieved from 100mm up to 360mm deep inclusive.



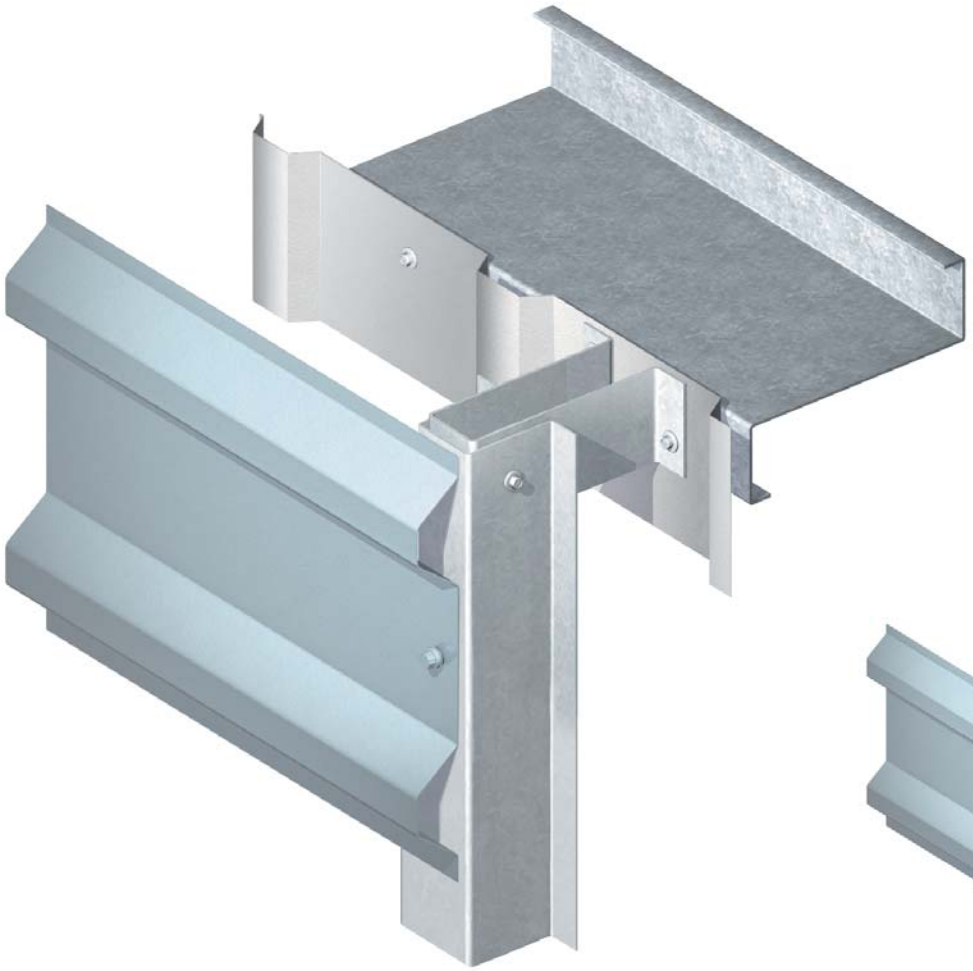
Note:

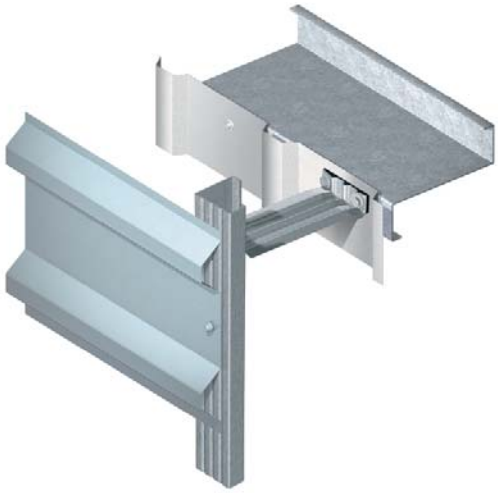
For both cladding systems the liner and rail construction must be rigid enough to take the various bracket systems and dead and bracing loads.

Horizontal sheeting

Horizontal sheeting presents the designer with problems of alignment and support. Ash & Lacy have developed a top hat system for longer spans, to ensure that the horizontal sheeting is adequately supported, and the applied wind loads are properly transmitted to the supporting structure.

When fixing horizontal sheeting, it is essential to ensure that a line is maintained, as the cladding sheets will have a tendency to 'roll' outwards, creating a sag between the supports.





Note:
For both cladding systems the liner and rail construction must be rigid enough to take the various bracket systems.

*For rail centres up to 1800mm the Ashgrid bar and bracket may be incorporated as illustrated subject to limitations due to load and deflection. Please contact the Ash & Lacy Technical Department for further information regarding horizontal spacing of AG40. To include a minimum of one AJC shear cleat per vertical run, refer to standard details.

**In instances where the top hat does not sit tight on to the bracket, care should be taken to avoid fixing the top sheets in these locations.

Following the introduction of Approved Document L1&2 the use of vertical Ashgrid for horizontal wall cladding has limitations,* as constructions have increased in depth to 140mm with rail centres up to 2m apart.

When load is applied to the Ashgrid system following the fixing of the sheets, the vertical bar tends to slide downwards causing the brackets to bend. To prevent this movement and to anchor the system, a rigid cleat is required at the base of the bar. However, the cleat then transfers the entire vertical loading onto one particular rail, which can cause actual twisting and overloading of the rail itself and have a detrimental effect on the structural stability of the secondary support steelwork. Brackets should be positioned a minimum of one per vertical run and staggered on main sheeting rails to avoid concentration on a single rail.

A more robust construction incorporates top hat sections spanning vertically across the rails to support the horizontal sheeting. These sections are available in 4m and 6m lengths and can be made continuous by using splice joints. To form the required cavity, top hats are fixed onto special Ashwall brackets with 2 No. screw fixings (one in each face).

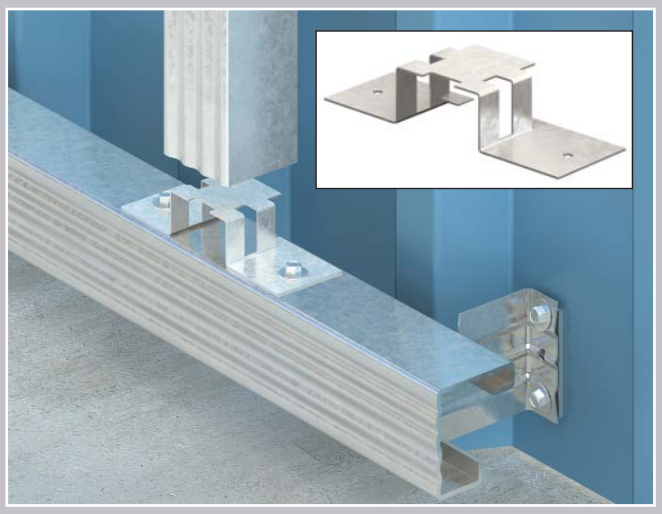
The Ashwall bracket is then secured back to the rail flange with 2 No. or more screw fixings. This connection detail not only distributes the vertical load evenly over all the rails, but also offers lateral adjustment to compensate for out of plumb steelwork**.

When comparing the structural performance of the two systems with a general wind loading of 1 kN/m^2 and typical rail centres of 1.8m, the Ashwall system would require vertical top hats at 1.7m centres. The Ashgrid system however would require bars at 700mm centres based on strength and deflection criteria.

Horizontal sheeting

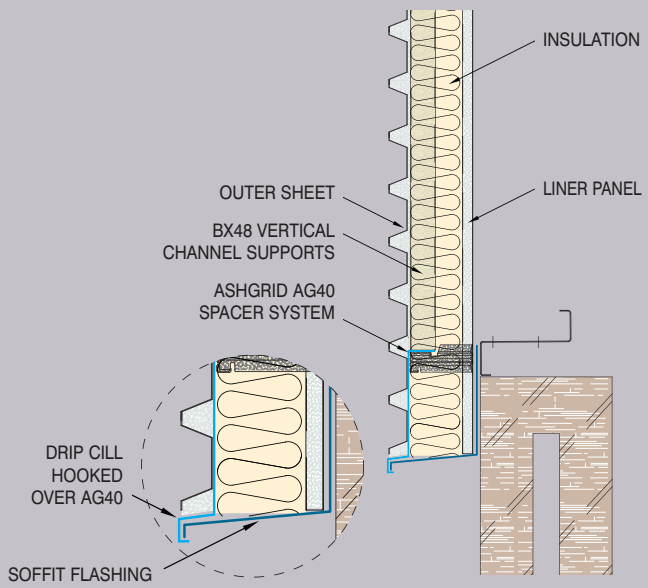
In order to fully utilise the flexibility of the BX48 system, Ash & Lacy have created recommended details for the design and construction of various solutions required on site that are often overlooked. The BX48 System is a fully engineered horizontal cladding support system, with bespoke connection details to ensure that loads are properly transmitted to the support structure, in conjunction with Ash & Lacy's AG40 Spacer system.

The below are examples of potential designs for the installation of drip flashings, the construction of firewalls for Ashwall BX48 for metallic silver cladding and also connection details to provide a robust solution for horizontal cladding.



Setting out

- Ashgrid is used to create the all important level base for the Ashwall bars
- AFT Connectors used to secure Ashwall bars to the horizontal Ashgrid
- The weight of the Ashwall bars is retained at the bracket locations



Drip flashings

Ash & Lacy have developed this recommended detail incorporating the new BX48 bracket for a robust drip and soffit detail, utilising the horizontal Ashgrid as a secure base.

Vertical spacer bars for horizontal cladding have to span between the main rails which generally range between 1.3 & 2.2m vertical centres.

Built-up cladding systems commonly have 140mm cavities but can range up to 200mm and with varying quilts, therefore the applied wind loadings as well as the weight & eccentricity of dead loadings can have a significant rotational effect on the main sheeting rails.

The Ashwall design has controlled the fixing locations in such a way that the deadloadings are effectively reduced back to the rail face to ensure minimal rotational effect. (The movement is developed and then absorbed in the Ashrail bracket connection).

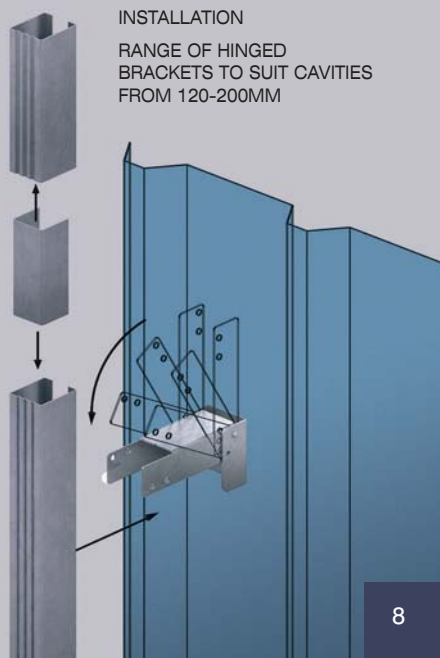
- Unique and true integrated system
- Fully engineered system
- Works in combination with and approved by major side rail manufacturers
- Ribbed, efficient box bar section to span up to 2.2m
- Easy labour saving spigot to extend bar lengths (no screws necessary)
- Unique pivot bracket for ease of fixing
- Brackets are hinged and available to suit cavities from 120-200mm
- Provides quicker installation – reduced amount of components
- Labour saving single man fix possible
- Cost effective

REAR VIEW OF THE BRACKET

THERMAL PAD NOT SHOWN TO ALLOW VIEW OF THE 3 FIXING HOLES

HINGED BRACKET PROVIDES EASY ACCESS FOR FAST INSTALLATION

RANGE OF HINGED BRACKETS TO SUIT CAVITIES FROM 120-200MM



Firewalls

Since the introduction of Ashgrid in the early 1990s, Ash & Lacy Building Systems have provided support bar solutions, including numerous fire systems, to offer contractors a fully engineered system in line with current Building Regulations (Part L).

More recent changes to part B have lead to the review of current Firewall details and this document provides information on Firewall constructions that offer benefits such as a reduced cavity depth to match non-Firewall elevations, as well as a separate 'fast track' installation option.

Also introduced is a Horizontal cladding Firewall, which provides a specifically engineered solution that eliminates the potential for any "rippling effect" in the external cladding face.

Further to this a Firewall system selector has been set up to cover our full range of Firewall details, this is detailed in the matrix below.

The Ash & Lacy Ashgrid & Ashwall™ BX48 and Firewall systems have been fully tested by Ash & Lacy Building Systems and certified by Bodycote Warrington Fire.

Bodycote warringtonfire global safety

further information is available on our website **ashandlacy.com**

System set out - brackets & insulation

All of the Ash & Lacy assessments have been carried out to ensure ease of installation with the fewest possible components and are based on an external wall application. To maintain integrity during a fire the spacer brackets must be positioned so that they do not exceed the width of the insulation strips and thus prevent insulation dropping down the cavity during a fire.

The brackets can be easily placed to ensure that they fall as close to the centre of the insulation strip as possible. For example if the width of the insulation strip is 1200mm, the first line of clips should clamp the insulation in place at the start of the elevation. The second line of clips should then be positioned central to the insulation strip at 600mm along the elevation and the rest of the clips can then be placed to suit the strip width subject to loadings.

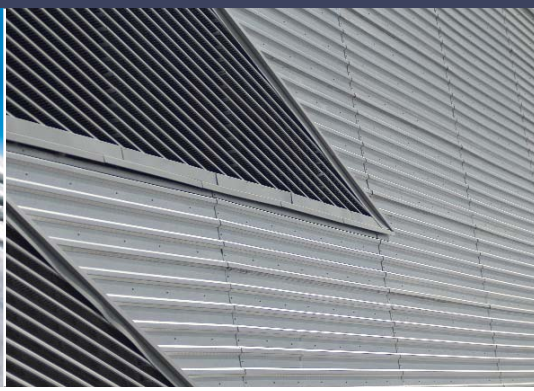
When using Ashgrid the bracket set out is not so critical provided that the first line of insulation has a bracket positioned in the centre. Working outwards from this point at 1m centres then means that there will be at least one bracket per insulation strip width. In all instances when using Ash & Lacy firewall constructions the responsibility lies with the installing contractor in ensuring the firewall meets the project specification and meets Building Regulations approved document B. In terms of cavity barriers, compartmentilisation and insulation integrity, all constructions assessed with two layers of glass fibre are based on a wall being 1000mm or more from the relevant boundary and are assessed to BS476.

Firewall System Selector

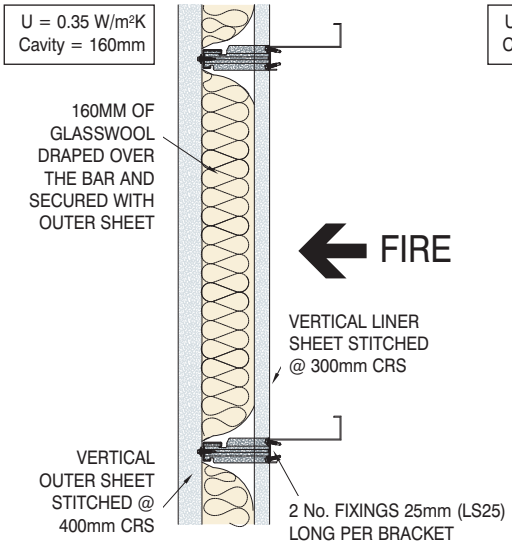
Report No	122298	122298	122298	131336	134697	170432
Test criteria/ integrity to BS476	240min integrity 15mins insulation	240min integrity 15mins insulation	240min integrity 15mins insulation	240min integrity 30mins insulation	240min integrity 30mins insulation	240min integrity 15/30mins insulation
Wall type	Internal fire	Internal fire	Internal fire	Internal fire	External fire	Internal fire
Construction	BX48 horizontal wall	Top Hat horizontal wall	Ashgrid Vertical wall	Ashgrid Vertical wall	Top Hat horizontal wall	BX48
Insulation type	Glasswool	Glasswool outside bar only	Glasswool outside bar only	Glasswool and rockwool	Rockwool and rockwool	Glasswool or Rockwool+Glasswool*
Material thickness	Outer 0.5mm steel Liner 0.4mm steel	Outer 0.5mm steel Liner 0.4mm steel	Outer 0.5mm steel Liner 0.4mm steel	Outer 0.5mm steel Liner 0.4mm steel	Outer 0.5mm steel Liner 0.4mm steel	Outer 0.5mm steel Liner 0.4mm steel
Drg No	FD19	FD18	FD17	FD01A	FD022	FD24
Tested fixing method for liner	Stitch/rivets at 300 ctrs	Stitch/rivets at 300 ctrs	Stitch/rivets at 300 ctrs	Stitch/rivets at 300 ctrs	Stitch/rivets at 300 ctrs	Stitch/rivets at 300 ctrs

* Subject to insulation integrity requirements, please check with Ash & Lacy Technical Department

Firewalls



Fast track firewall
15mins Insulation Integrity

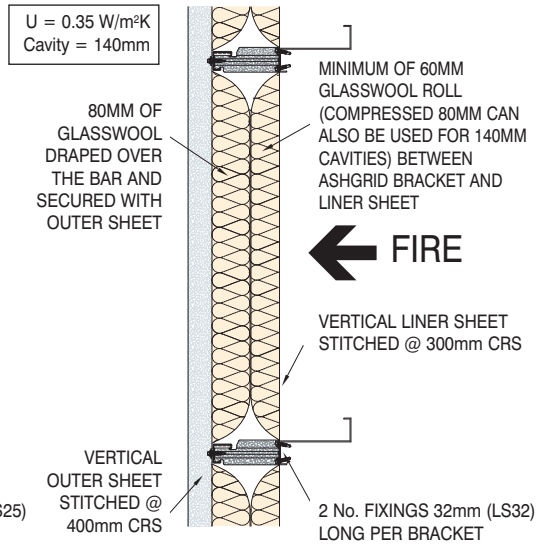


Timed rating: 4hr fire wall
Insulation thickness : 160mm insulation to provide 0.35 W/m2K U/value.
Insulation integrity: 15mins
Details: FD17, FD18 & FD19
Assessment no: 122298
Bracket depth: 160mm
Applications: BX48 Horizontal, Top Hat Horizontal, Ashgrid Vertical

These options allow for all of the glass fibre insulation to be tucked over the outside of the bar and be compressed behind the outer cladding sheets. In such cases the correct torque must be used on the fixing gun and spreader washers used on fixings to reduce the amount of deformation about the fixing.

Thicker insulation is required in this arrangement for thermal requirements due to the amount of compression.

Standard cavity depth constructions
15mins Insulation Integrity



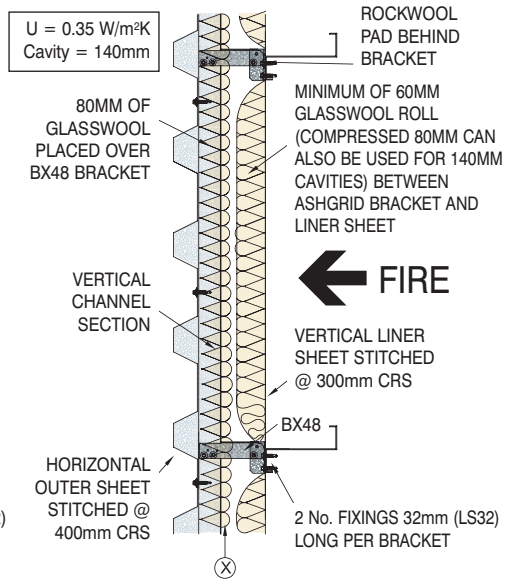
Timed rating: 4hr fire wall
Insulation thickness: 140mm insulation to provide 0.35 W/m2K U/value.
Insulation integrity: 15mins
Details: FD15, FD16 & FD20
Assessment no: 131336
Bracket depth: 140mm
Applications: BX48 Horizontal, Top Hat Horizontal, Ashgrid Vertical

These constructions utilise two layers of quilt, one tucked under the spacer bracket and one tucked over the outside of the bar for ease of construction.

The bracket depth is 140mm to match non-Firewall elevations and removes the need for a deeper Firewall construction, while providing 0.35 W/m2K U/value. (135mm deep TH arrangement).

Please refer to selector for details of 30 mins integrity option.

Metallic silver horizontal cladding construction
15mins Insulation Integrity



Timed rating: 4hr fire wall
Insulation thickness: 140mm insulation to provide 0.35 W/m2K U/value.
Insulation integrity: 15mins
Details: FD24
Assessment no: 170432
Bracket depth: 130 with rockwool barrier pad
Applications: BX48 Horizontal cladding

This construction negates the need for insulation to pass between the outer sheet and Ashwall bar, eliminating the risk of a 'rippling' effect when laying Metallic Silver cladding horizontally.

Two layers of glass fibre insulation are incorporated, one tucked under the bar and one pushed over and hung off the bracket. The additional thermal break is catered for by the inclusion of a Rockwool pad on the back face (fire side of the bracket)

In all cases refer to full assessments for notes on supporting methods.

Thermal requirements / loading out

Provision for loading out

Ashgrid is strong enough to support all the design working loads relevant to the building cladding system in accordance with our recommendations. However, during the course of construction the spacer system may be subjected to abnormal and/or concentrated loadings from various sources such as, walkway boards, foot traffic, construction materials and heavy sheet packs, often up to two tonnes in weight. This is likely to be when the system is less stable, with relatively few brackets being fixed, and without the restraint that the fixed outer sheet provides.

Lack of attention to the need for supporting abnormal loading could cause partial collapse. The engineered solution is to use an Ash & Lacy heavy duty load bracket as and when required. These brackets are made from 3mm thick galvanised steel and are of suitable height for the chosen system. They are fixed by two standard fasteners through the base and into the roof purlin and through the head of the bracket in to the side of the Ashgrid bar using two standard fasteners. Forward planning may allow the positioning of the load bracket in lieu of a standard bracket position, thereby saving the cost of the Ashgrid bracket. Thus the load bracket will support a vertical load of 1 tonne. Heavy loads should be located on the roof over the line of the main rafter. (Mid span loads could adversely affect the roof purlins.)

If the construction load positions are not known, then load brackets could be positioned over the rafter on alternate purlin lines in a staggered pattern and thus giving more freedom to loading out.

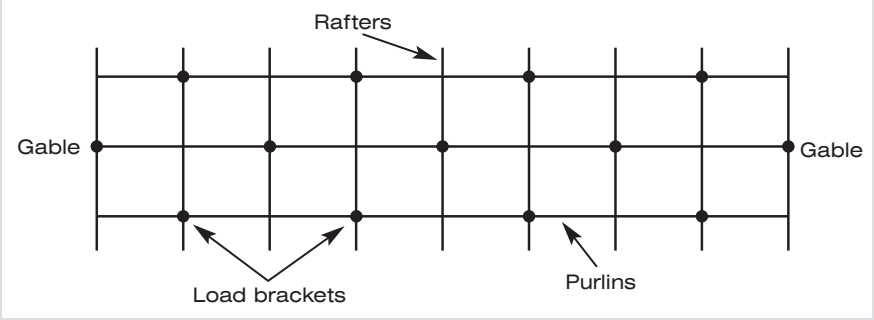
Other means of load support have been adopted, such as timber packers, and whilst these can be effective, they are obviously less engineered and should be used with caution, and at the contractors risk as they have been known to shift and lead to failure.

	U–values W/m²K	ROOF (mm)	WALLS (mm)	
			Vertical Cladding (Bar & bracket)	Horizontal Cladding (Vertical top hats)
Insulation λ = 0.040 W/m²K	0.16	300	-	-
	0.20	220	-	-
	0.25	180	180	180
	0.30	-	160	160
	0.35	-	140	140

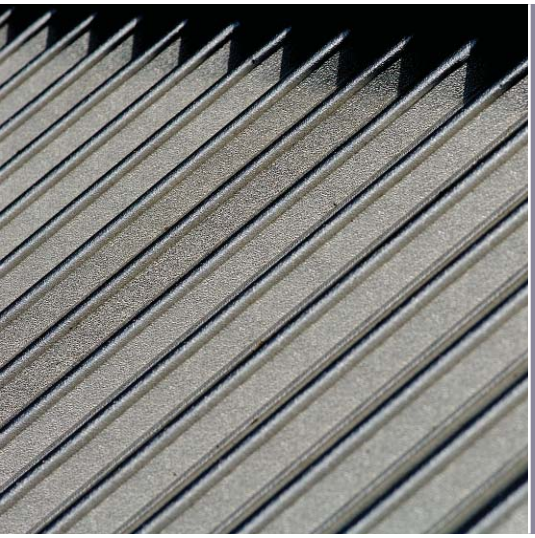
Notes

- All values are for insulation thickness and cavity depth
- Ashgrid brackets assumed to be at 1m centres
- Purlin centres assumed to average out to 1.2m
- Rail centres assumed to average out to 1.0m

LOAD BRACKET ARRANGEMENT



Standing seam roofing system



The Ashgrid spacer support system can be used in conjunction with a traditional standing seam halter system as a method of achieving a U-valve of 0.25 W/m^{2}K in compliance with the requirements of ADL1&2.

In a typical standing seam build-up aluminium halters are generally fixed at 400mm centres which repeatedly bridge the roof construction. The increased thickness of insulation required to compensate for this additional heat loss greatly increases the overall construction depth.

By incorporating an Ashgrid spacer support system into the roof build-up, the effects of repeated thermal bridging are reduced as the support brackets are fixed at 1m centres. This enables a reduced thickness of insulation to be used, creating a roof construction that is structurally sound and easily meets the required thermal performance criteria.

The use of the Ashgrid spacer support system also allows greater flexibility in the choice of liner profile as unlike a traditional standing seam halter, the Ashgrid brackets can be spaced accordingly.

Material specification

Ashgrid™ AG40 bar

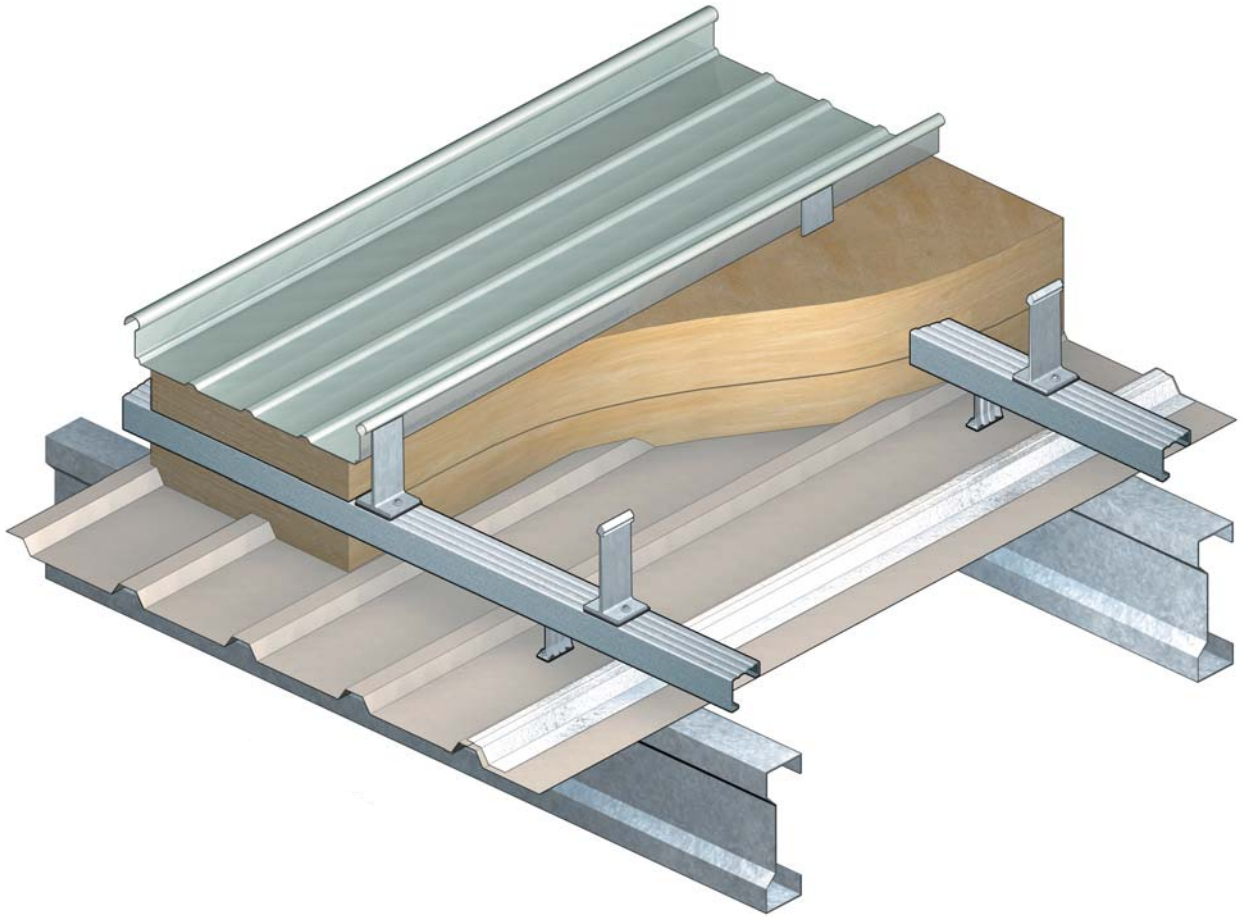
Manufactured from 1.25mm thick high yield galvanised steel to S390GD + Z275 NA-C. Coil to EN 10147: 2000. Minimum yield: 390N/mm^2, Minimum tensile: 460N/mm^2. Supplied in lengths of 1m, 2m & 3m incorporating spigot end for easy on-site connection.

Ashgrid™ brackets

Manufactured from 1.6mm thick galvanised steel to FEPO2G + Z275 BS EN 10142. Supplied with a 3mm thick EPDM base thermal insulator pad the standard bracket heights (mm) are: 60, 80, 85, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250 & 280.

Ashfix™ fixings LS25
(1.25mm – 3mm thickness steel)

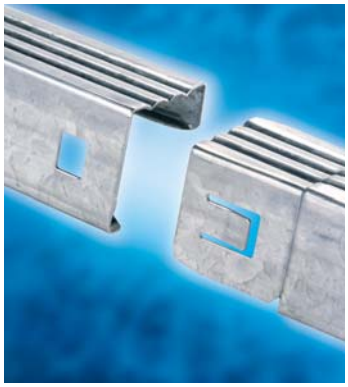
For fixing brackets into thin gauge steel use LS25 fixings. To ensure maximum sheet to bar fastener performance use LS25 with G16 washers for walls, G19 for roofs and G29 for rooflights.



Case study

- Unique Safe-Loc™ spigots
- Fast, secure and safe bar joints with no need for fixings
- New high performance brackets, deeper ribs for improved structural and sheet fastener performance
- No anti-sway provision needed below 250mm construction depth
- Simple, fast and safe insertion and removal of brackets, either twist and lock or slide and lock

One of the most famous rugby towns in the world is relishing its new rugby stadium, constructed using Ash & Lacy's Ashgrid spacer support system. The sports fans of Llanelli in South Wales are supporting their home teams at the spectacular Parc y Scarlets.



Ash & Lacy's Ashgrid system and Ashfix fixings were used on the north-east quadrant of the brand new 15,000 capacity stadium. Aberclad, the main roofing and cladding contractors on the project, specified Ash & Lacy based on both the service and quality of the product. Greg Hillman, Aberclad, commented, *'We always use Ash & Lacy products because we receive great customer service and the products are always of a high quality and easy to install. We had such a professional team of contractors and suppliers working on site, that we were able to finish the project before time'.*

World-renowned professional team The Scarlets and semi-professional team Llanelli RFC, have been enjoying home wins at their new home. Both teams previously played at the world-famous Stradey Park until moving to the larger Parc y Scarlets in November '08. Parc y Scarlets offers the teams more space and the most hi-tech facilities available to meet the needs of the senior team's professional status.

Project	Parc y Scarlets
Location	Llanelli, South Wales
Product	Ashgrid Spacer Support System and Ashfix Fixings
M.Contractor	Aberclad
Sector	Leisure

There is a training barn onsite which can be used by members of the community as well as the teams, a training pitch, cardio studio, dedicated physiotherapy rooms and athletics track. Parc y Scarlets also has the first rugby pitch in the UK to use fibre elastic reinforcing technology combined with 100% natural grass surface, producing a 'spongy' surface for players, reducing the risk of injury. The design of the stadium itself means the crowd are close to the rugby, resulting in an electrifying atmosphere.

Scarlets managing director Gareth Davies said, *'Everyone is over the moon with the new stadium. Our players have the training facilities to meet their needs and we were very close to hitting our capacity of around 15,000 for our official opening game at the end of January. Our fans, players and sponsors all love it.'*

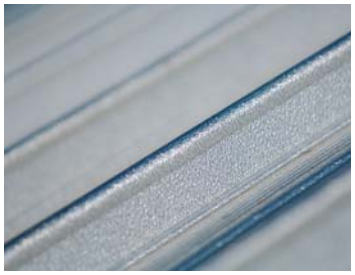
Ash & Lacy's Ashgrid was the first spacer support system to be developed for built-up metal roofing and cladding. The system is fully adjustable, with a wide range of bracket heights to meet any design specification and standards. Three strategically placed Ash & Lacy distribution centres across the UK ensure that delivery time is quick and their carbon footprint is kept to a minimum.

Envelope solution

The total envelope solution – from a single source

To ensure compatibility between individual components and to make the design, specification and installation process as smooth and as risk-free as possible, the Ash & Lacy envelope solution is available from a single source. From standing seam roofing and rainscreen cladding systems to the bespoke architectural fabrications that create the visually important perimeter details, all products undergo rigorous testing procedures and offer unrivalled product quality and customer service associated with Ash & Lacy Building Systems.

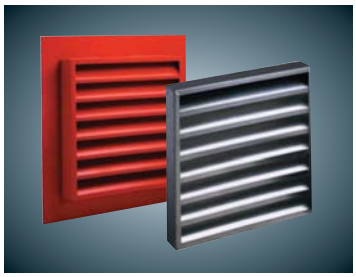
Ashzip™
standing seam roofing systems



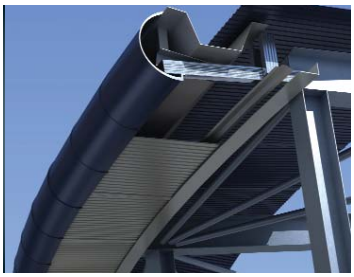
Ashgrid™
spacer support systems

Ashjack™
over-roof conversion systems

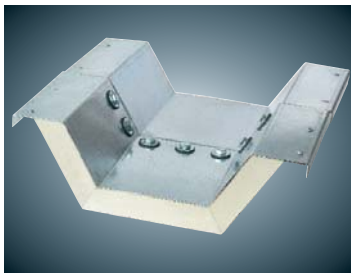
Ashtech™
rainscreen cladding systems



Ashfab™
architectural fabrications



Ashfab™
ash-thetics



Ashflow™
rainwater systems

Ashfix™
fasteners and accessories

All products are supported by a comprehensive technical advisory service, which is available from the design stage right through to the completion of the project.

Ash & Lacy also offer an extensive range of Ashflow rainwater management systems.

Spacer Support Systems

Rainscreen Cladding Systems

Standing Seam Roofing Systems

Over-Roof Conversion Systems

Fabrications and Flashings

Fasteners and Accessories

West Bromwich. Bromford Lane, West Bromwich, West Midlands B70 7JJ
Tel: 0121 525 1444 Fax: 0121 525 3444

also at: London. Gateway 3, Davis Road, Off Cox Lane, Chessington, Surrey KT9 1TD
Tel: 020 8391 9700 Fax: 020 8391 9701

Glasgow Unit 4b, Albion Trading Est, South Street, Whiteinch, Glasgow G14 0SY
Tel: 0141 950 6040 Fax: 0141 950 6080

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