



Howells

Manufacturers and installers of
Patent Glazing and Rooflight Systems

Commercial
Brochure



www.howellsglazing.co.uk

Pre-Qualification Insurances

Qualifications/policies

Health and Safety CSCS (inc SSSTS)
 SMAS worksafe contractor
 Occupational Health and Safety policy
 Environmental Policy
 Bribery Policy
 Equal Opportunities Policy
 Ethical Policy
 ISO9001

Independent audited Health and Safety manual, which incorporates COSHH, risk assessments and sample method statements.

Our technical contracts team are able to provide method statements and risk assessments for every contract.

Members of

CAB (Council for Aluminium in Building)
 Construction Line

Insurances:

Employers Liability
 Public/products Liability
 Contractors All Risks
 Professional Indemnity

Installation Team

We install from The Orkneys to Guernsey, our installation department is comprised of 3 main teams of directly employed fixers. They have undertaken the rigorous Howells training matrix for all our glazing options. Comprised of individual training on every application and it is only when they have reached our required standard are they allowed to accompany our fixing team onsite. Each of our fixing teams includes a foreman, who ensures day to day quality of installation.

We also have contracts managers assigned to our installations who attend all pre-contract meetings and monitor performance on site.

Our installation team also undertake external training.

Example of these training courses:

CSCS inc SSSTS
 Asbestos Awareness
 ISOH
 First Aid
 Forklift
 Telescopic Handling
 Rough Terrain Telehandler
 IPAF
 Manual Handling
 Height Safety
 Ladder Safety
 Plant Training
 PASMA

We have a commitment to ongoing staff training. It is our commitment to excellence that ensures quality, deadlines and targets are met.



Howells

Introduction

Howells Patent Glazing Limited (HPG), is a well respected manufacturer of Patent Glazing Systems since 1973. Our products are mainly supplied to the commercial sector and they include an exclusive glazing bar range in their own system to fulfil most overhead glazing requirements.

Products are supplied to main contractors and also to local builders. We can also act as Main Contractor, taking on small elements of building work and supporting framework. We directly employ our fully trained fixing teams which ensure Howells quality is maintained from enquiry through to job completion.

The HPG bar system can be used for many different applications, from patent glazing, through to canopies and roof lights. The range provides for inverted glazing bars to suit various spans. Traditional types of bar can also be provided if required, such as the heritage wing bar. These bars can incorporate the HPG top hung opening vent or smoke ventilator.

The system is suitable for use in railway stations, care homes, shopping centres, schools, retail complexes, heritage buildings, domestic applications and factory units.

We have a wide portfolio of works that we have undertaken including schools, colleges, nursing homes for which we have undertaken covered walkways, pre formed rooflights, barrel vaults, canopies and single and double pitched roofs.

Our contracts have also included domestic installations of swimming pool covers, rooflights, lantern lights, single and double pitched rooflights and conservatories including portal frames, if required. Industrial/commercial application of our products have included commercial buildings, airports and shopping centres with contract values ranging from around £2,000 to a substantial £1,000,000.

We can also provide portal frames and give advice on the requirement of structural supports.

Our own patented system is made from extruded aluminium alloy complying with BS EN 755-9:2008, the designation 6063T6 ancillary components such as flashing, closures weathering and gutters are provided from preformed aluminium alloy.

The bars can be supplied in mill finish, anodized to BS EN ISO 7599:2010 or powder coated to BS EN 12206-1:2004 in a wide range of colours.

We have now diversified into supplying a bar called VT plus. This system is fully thermally broken to meet the ever increasing demands for thermal efficiency. Low maintenance materials to combine both modern and traditional and authentic appearance of timber structures.

Our family run firm undertake contracts on a supply only or supply and install basis with installation of patent glazing in both roof and vertical applications using single, double glazing or polycarbonate sheet. All bars are manufactured in the UK and assembled at our factory complex in the West Midlands. Most orders can be accommodated within an 8 week lead time from approval of drawings, if necessary, and shipped to sites by our tailored transport.

We have a dedicated onsite Sales, Estimating, Technical and Contracts departments to supply the requisite support. Key staff have over 150 years combined experience within the industry, giving HPG in-depth expertise in the design of roof and vertical systems ensuring that the customer gets the best advice on the type of bar required to fit the purpose of the project.

When putting trust in Howells Patent Glazing Ltd as a supplier our family run firm offer all customers a bespoke and tailor made service, working closely with them to fulfil their requirements.

Controlling thermal efficiency

We have developed a range of bars that address the thermal efficiency requirements of the modern building practices. We are proud to say that because of this dedication to customer requirements, our system is now one of the most thermally efficient systems in the market place today.

Both of the internal and external components are completed isolated from each other by means of either polyamide strip, thermal barriers, insulation and isolators, so there are no cold bridges, therefore reducing temperature transfer to a minimum.

A feature of our system is that both the glass and the glazing bar system do not project outside our eaves beam, i.e. reducing a cold bridge even further.

Our system is designed that when used with the standard 28 mm double glazed units, which has a centre pane U value as low as 1.0 W/m². This can be further reduced to an amazing 0.6 W/m² by using triple glazing (this is dependant of the roof style).



Bar Range

We specialise in innovative designs that are aesthetically appealing and we are always willing to lend a hand if you have a complicated project that requires some expert advice. We offer a full design, manufacture and installation service so that you can have your whole project handled by our experienced team. We can even manage your project and carry out building work if required. This allows us to have complete control over every stage of the project, which ensures that everything runs smoothly and is completed on time and on budget.

All our bars are manufactured in the UK and assembled right here at our factory complex in the West Midlands. They can be supplied in various lengths to suit your requirements.

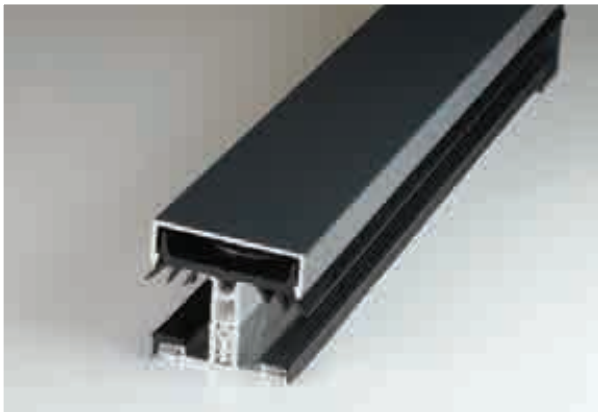
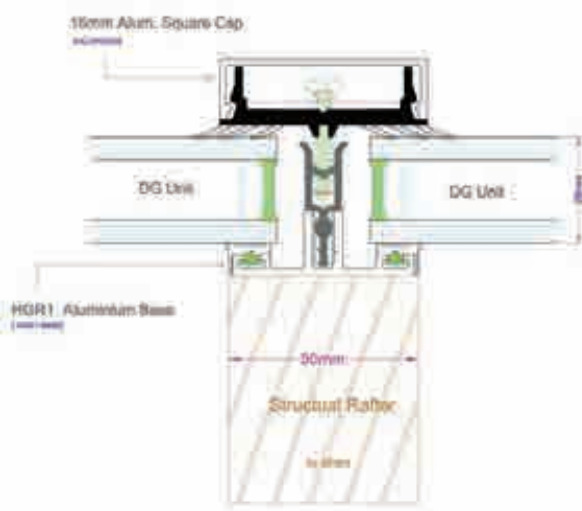
They can accommodate glazing options that range from 6 mm right through 32 mm units. This can be achieved with polycarbonate, multiwall, single, double or triple glazed options.

All our bar systems can be finished in a powder coated RAL colour of your choice; satin, metallic, sensation or gloss, anodised or left in its original form of mill finish.

Our sales team are also technical advisors and can offer advice on the type of bar required to suit your individual need or application.

When you put your trust in Howells Patent Glazing as your supplier, you will not be disappointed with our service, as we work closely with our customers to fulfil your requirements and come up with solutions that will improve your project.

We always aim to provide the most competitive quotes whilst still giving you great quality service from our team from the very start.



HGR 1

Rafter Bar (Non Structural)

Commercial

28mm SQUARE

Product Description

This rafter glazing bar can be used as a glazing medium on timber framed, steel and aluminium structures.

The visual impact of this system is quite a dramatic aesthetic inside the building. As the aluminium bars sit on the wooden rafters, the view from below is of natural timber, which is protected from weather as it will never be exposed to the elements.

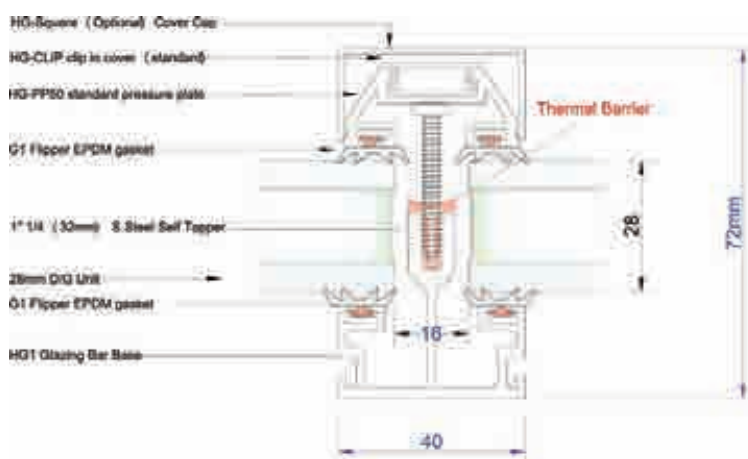
These bars can be painted in any RAL colour and when installed with double glazed units, the combined thermal properties ensure that the system meets with the new Document L standards.

This system will accommodate a multitude of different thicknesses from 6mm to 48mm by simply adjusting the length of external caps security screws. (However 28mm D/G is our standard) Hip / Ridge / Jack bars also available.

The caps can be supplied in either ornate or square finish.

HG1

Self Supporting Glazing System



Product Description

HG1 is an aluminium glazing bar for single or double glazing options from 6 mm through to 50 mm, with self support properties.

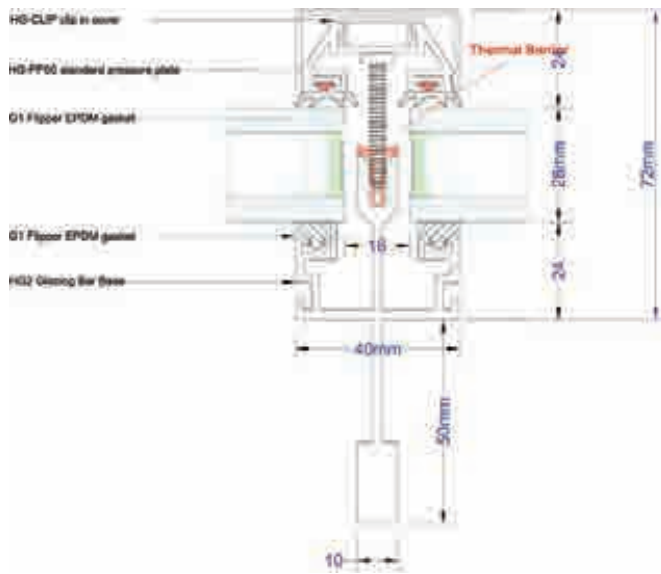
This is an alternative to the traditional stalked type of glazing bar option, which gives a compact design without losing the thermal and strength integrity.

This strength is derived by the internal concealed stalk and has a further screwed on cap. All of which are powdered coated to a choice of RAL colours.

Cap options are available in sloping or square. We can also fabricate bespoke aluminium flashing to suit.

Normal Span for this bar range from 1000 mm through to 1500 mm. This is dependent on glass loadings and location of contract.





HG2

Self Supporting Glazing System

Product Description

HG2 is an aluminium glazing bar for single or double glazing options from 6 mm through to 50 mm, with self support properties.

This is an alternative to the traditional stalked type of glazing bar option, which gives a compact design without losing the thermal and strength integrity.

This strength is derived by the internal concealed stalk and has a further screwed on cap. All of which are powdered coated to a choice of RAL colours. Cap options are available in sloping or square.

We can also fabricate bespoke aluminium flashing to suit. Normal Span widths for this bar range from 2000 mm through to 3400 mm. This is dependent on glass loadings and location of contract.



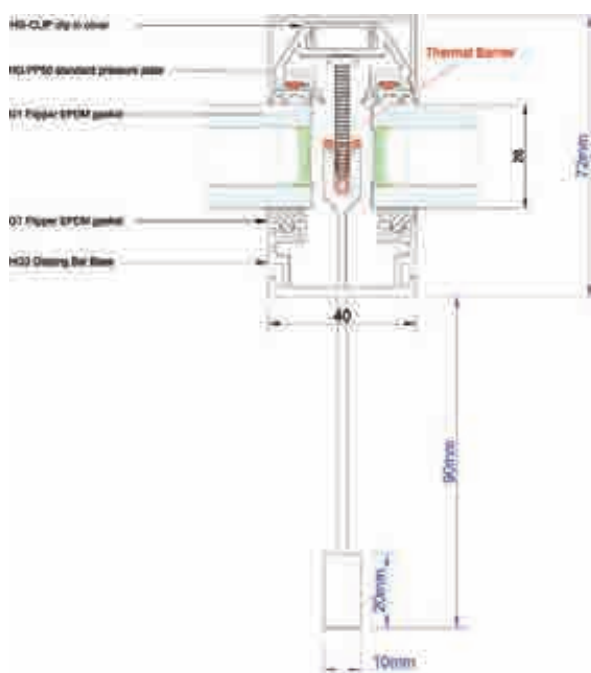
HG3

Self Supporting Glazing System

Product Description

HG3 self supported glazing bar can accommodate a square or sloping cap and single or double glazed units from 6 mm through to 50 mm, with self support properties.

There are many accessories available such as weather bars, end sheet closures, side flashings etc, We can also fabricate bespoke aluminium flashing to suit.



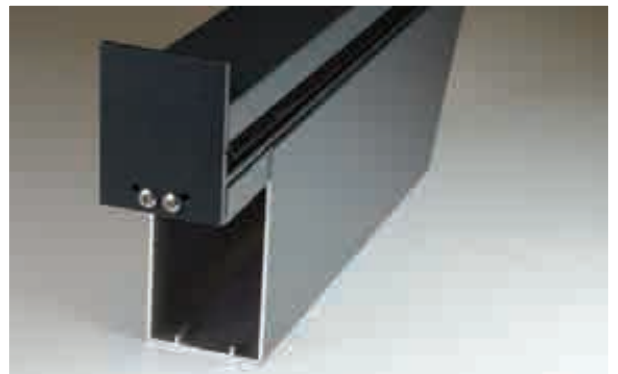
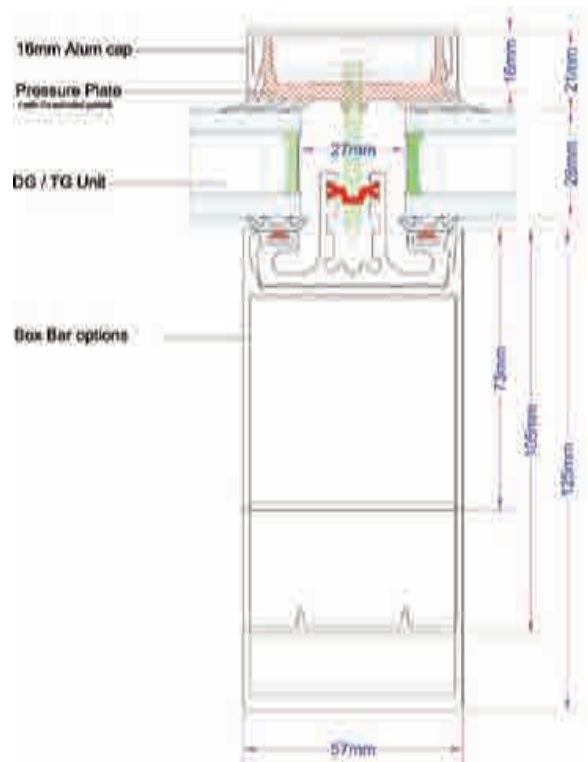
HGVR-BOX Bar System

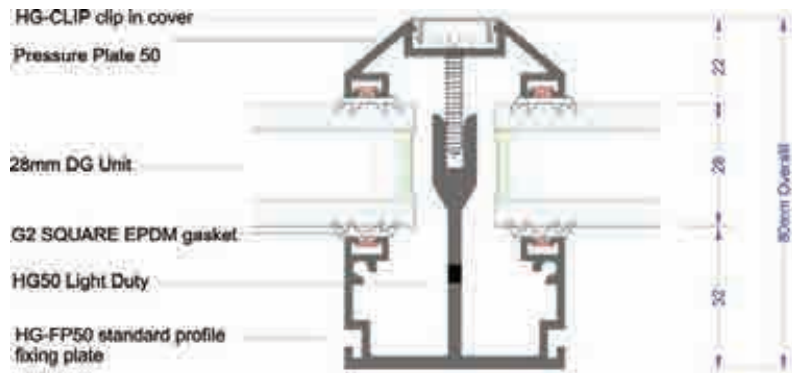
Product Description

The HGVR-BOX is a neat structural system that can span large distances. This means it can offer a cost effective solution, especially for larger scale contracts.

The internal box design of the system ensures the lowest thermal transfer, therefore reducing the effect of cold bridging.

An aesthetically pleasing system that can be supplied with a choice of external caps in either an ornate or square finish.



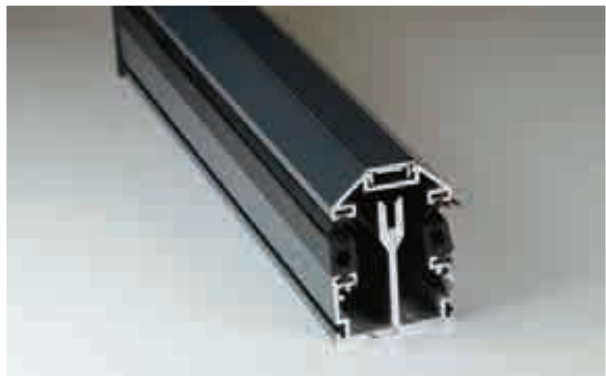


HG50

Light Duty Glazing Bars

Product Description

HG50 light duty self supported glazing bar is a 50 mm wide bar that can accommodate single, double or triple glazing. It can be supplied with a sloping or square cap.





HG57

Medium Duty

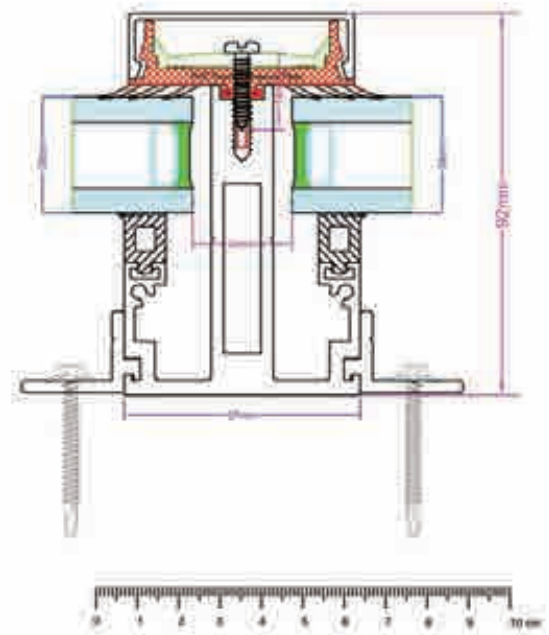
Product Description

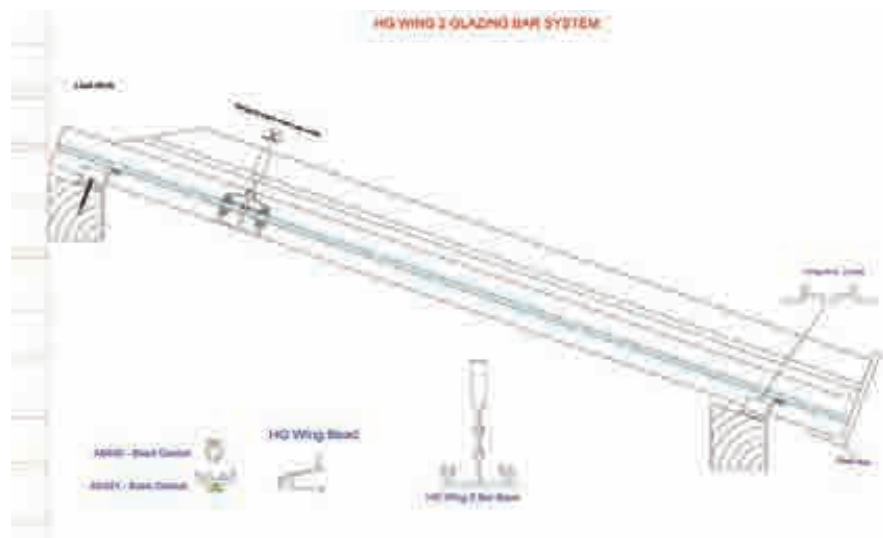
This rafter glazing bar can be used as a glazing medium on timber framed, steel and aluminium structures.

These bars can be painted in any RAL colour and when installed with double glazed units the combined thermal properties ensure that the system meets with the new Document L standards.

This system will accommodate a multitude of different thicknesses from 6mm to 48mm by simply adjusting the length of self taper. (However 28mm D/G is our standard) Hip / Ridge / Jack bars also available.

The caps can be supplied in either ornate or square finish.





HG

Wing 2 Bar

Product Description

HG wing bar can be glazed with a multitude of different glazing materials ranging in size from 6 mm through to 24 mm.

There are many accessories available such as weather bars, end sheet closures, side flashings etc. We can also fabricate bespoke aluminium flashing to suit. Normal Span widths for this bar range from 2300 mm through to 4200 mm. This is dependent on glass loadings and location of contract.



Rooflights

We have many different types of rooflights in our range. They are constructed from aluminium and are fully thermally broken, giving superior thermal efficiency coupled with low maintenance and stylish design.

They can be powder coated to any colour within the RAL standard colour range, including dual colours, or have an anodised finish.

They can have different internal and external profile finishes, including square, ornate or raked to suit the application requirements.

They are made to order, to any size and pitches available from 15 to 45 degrees.

Our Rooflight bars can accommodate glazing options ranging from 24 mm to 50 mm triple glazing.

All our rooflights can accommodate all of our opening vent range.

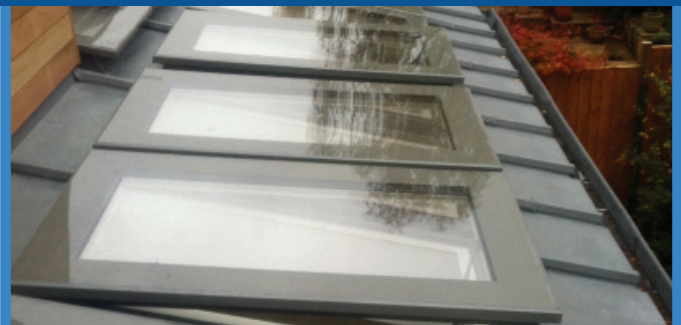
The different styles include:

Double Hipped	Dodecagon - (12 Sided)
Pyramid	Mono Pitched Roofs
Lantern Commercial	Octagon (8 sided)
Gable Ended	Stretched Octagonal
Multi Facetted	Hexadecagon (16 Sider)
Stock Sized	Double Pitched
Hexagonal (6 sided)	Flat Border Edge Sky Lights
Roof Vent	Finials & Crestings
Barrel Vault	

Flat Rooflights

Image Right
Flat Border Edge Sky Lights
(within standing seam roof)

Image Below
Flat Border Edge Sky Lights
(on builders curb)




Double Hipped Rooflights

FULL Aluminium Thermally Broken System

- 30 Degree as our standard roof pitch
- 15-45 Degree pitched also available
- Powder Coated to any RAL Colour of your choice

Our standard stock colours are:

- RAL 9910 Satin Bright White
- RAL 7016 Matt Anthracite Grey
- Or Dual Colour (i.e White Inside / Grey Outside)



Double Hipped Rooflight with square bar feature.
6.5 metres long by 2.5 metres wide.



Octagonal Rooflights

FULL Aluminium Thermally Broken System

- 30 Degree as our standard roof pitch
- 15-45 Degree pitched also available
- Powder Coated to any RAL Colour of your choice

Our standard stock colours are:

- RAL 9910 Satin Bright White
- RAL 7016 Matt Anthracite Grey
- Or Dual Colour (i.e White Inside / Grey Outside)



Lantern Rooflights

Lantern lights are construction from our rooflight bar and can be easily incorporated in a commercial development.

We have successfully installed them into schools, hotels, leisure centres and commercial retail parks.

Bespoke Rooflights

Not all Rooflight requests fall into the categories that we have mentioned, these special one off projects are bespoke designs that have the benefit of our vast experience and technical knowledge behind them.

With the addition of vertical windows, Lantern lights can be made to measure.



Mono Pitched Rooflights

FULL Aluminium Thermally Broken System

- 5-45 Degree pitched available
- Powder Coated to any RAL Colour of your choice

Our standard stock colours are:

- RAL 9910 Satin Bright White
- RAL 7016 Matt Anthracite Grey
- Or Dual Colour (i.e White Inside / Grey Outside)



Double Pitched Rooflights

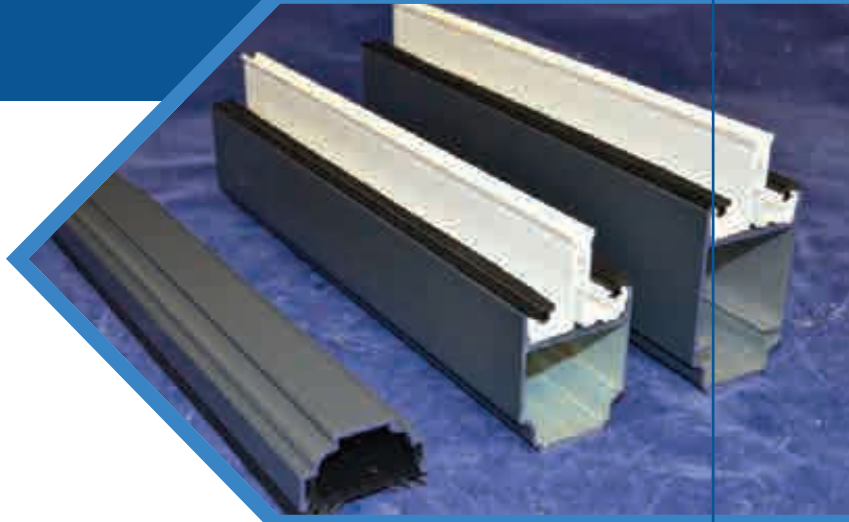
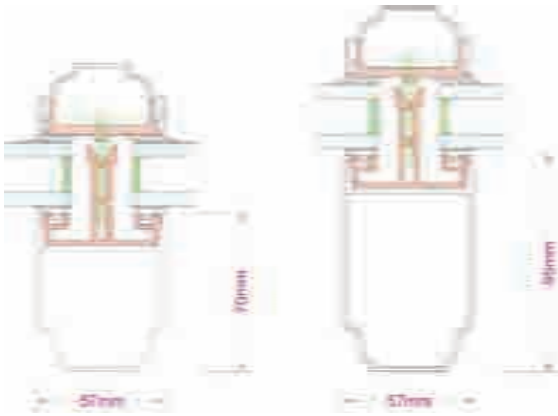
FULL Aluminium Thermally Broken System

- 5-45 Degree pitched available
- Powder Coated to any RAL Colour of your choice

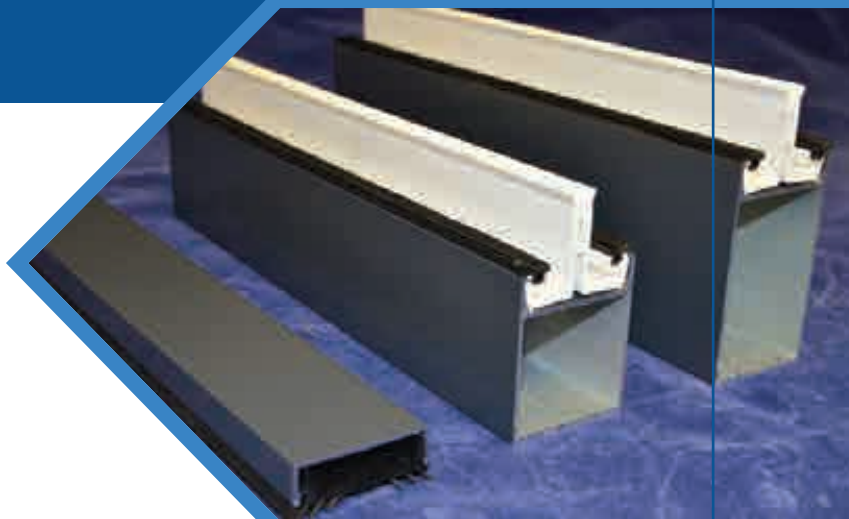
Profile Choices

Our Rooflight bars come in **3 different profiles**

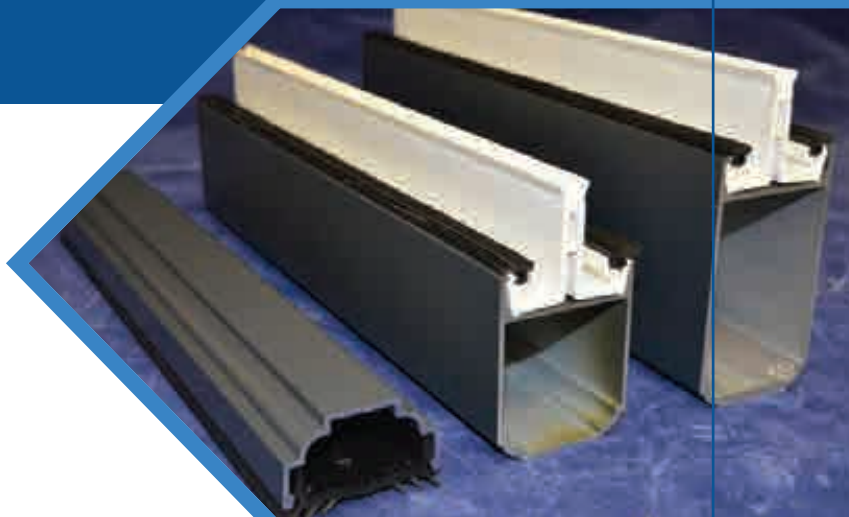
Ornate Victoria Profile



Square Profile



Ogee Rounded Profile



Samples available upon request

Glass Options

There are many different glass specifications to choose from.

Our preferred supplier is Pilkington Glass as they are an established company and a household name.

Our standard specification for glass is 28mm Clear toughened double glazed units (with a centre pane U value of 1.2 W/m).

However, we do offer a 50mm tripleglazed unit option (with a centre pane U value of 0.7 w/m²).

Glass upgrades such as Activ Self Cleaning and also Activ Blue or Neutral (Grey) Solar controlled options are available just to name a few.

Glass samples and more technical information available on request.

Clear Activ

Solar Blue Activ

Solar Neutral
Grey Activ

Roof Vents

Our roof vents are made to measure and can be fitted stand alone into a roof, or form part of an overhead glazing solution requiring ventilation.

They have the benefit of being able to accommodate single 6 mm glass through to 50 mm triple glazing.

Dependant on the purpose, they can be Manual or motor operation to 230 volt or 24 volt and can be powder coated to any standard RAL colour.

Other vents that are available are smoke/heat, rain, access, walk on, domed/preformed or trickle.

Control Options

There are several different types of control methods including On/off, Worm gear and control panel with thermostatic control options.



Guttering

These Traditional Moulded Ogee Gutters are normally direct back fixed to the Fascia Board. These Metal Gutters are predrilled ready to be direct back fixed with no brackets are required.

Other types of Gutter Brackets, Fascia Brackets, Side Or Top Fix Rafter Brackets, Mortar brackets / Rise and Fall Brackets can be provided. Special / Bespoke Gutter Brackets can also be manufactured.

For more information on the full range available please visit our website

www.howellsglazing.co.uk/commercial



Large Moulded Gutter.

Vent System

We have developed our own vent system, to slot within our roof patent glazing bars. They have been designed to accommodate all types of roof patent glazing applications, utilising single glass or double glazing to suit customer requirements.

The system comprises roof mounted pneumatic, electrically operated opening ventilators connected to a remote control panel or manual worm gear controlled operation using an operating pole

They come in various options such as smoke ventilators. These are designed to aid the safe evacuation of premises where the system has been installed.

All ventilators comply with the recommendations of BS 7346 part1. Accreditation certificate on the test carried out at Warrington Fire Research Centre is available for inspection upon request.

The system also provides for the ventilators to be used on a day to day basis to provide natural ventilation if required. If inclement weather prevails the system can incorporate rain sensors to automatically close the ventilators.

Note!
The fire signal is master and will override all other signals.



Manual Roof Vents



Digital Control Panel



Electrical Roof Vents



Remote Control Unit



Tandem Unit
(To Synchronize two motors
on the same unit)



On/Off Rocker



Canopies

Our canopies come in many designs and can incorporate individual design criteria, such as logos, corporate colour matches or shape.

Some of our own bars can bend and so we are able to offer barrel vault or wave options, as well as pyramid, mono or dual pitch or an incorporation of several options.

Our bars can be mounted onto a rafter system, supported by steel structure or self supported.



Commitment to Heritage

We have worked in conjunction with English Heritage for approval on listed buildings using our heritage wing bar and also adapting our current range to meet with the specific requirements.

HG wing bar can be glazed with a multitude of different glazing materials ranging in size from 6mm through to 24mm.

There are many accessories available such as weather bars, end sheet closures, side flashings etc, We can also fabricate bespoke aluminium flashing to suit. Normal Spanning capability for this bar range from 1600mm through to 3200mm. This is dependent on glass loadings and location of contract.

The bars and cappings can be supplied in mill finish or powder coated with any RAL colour to BS6496, whether they be standard or special.

HPG's heritage products have been used on several projects including Windsor Royal Station and Stoneleigh Abbey.

North Lights

For those north-facing spaces the range of standard and bespoke Northlights are specifically designed to maximise the natural daylight. They come in a range of sloping faces and with glazing or cladding tailored to suit. We also supply polycarbonate and glass Monopitch glazing to suit different roof applications.

Schools

We have a lot of experience working within schools, have DBS enhanced clearance and are adept at working within budgetary constraints.

Over the years we have come across many conundrums within schools, sometimes when additional buildings have been added it can cause unusual layouts to schools. This can lead to quadrangles in the centre of a building open to the elements or pupils having to travel outside to change classrooms.

We can offer a tailored solution to cover these with our bespoke rooflights, covered walkways or entrance canopies.



Shopping Malls / Commercial premises

We have undertaken many contracts in shopping centres for overhead glazing, canopies and rooflights. We understand that sometimes there is a need to work around business operations. We can offer a solution with out of hours working or safe/secure working areas.



Industrial Parks

Industrial parks offer a different challenge, whether this is a new build or refurbishment of an old building. We have worked on all types from small canopies through to large stretches of double pitched patent glazing.



Leisure

We have worked on many well known sites, such as UCI cinemas, NEC, Nottingham Ice Rink, Millenium Point, Digbeth, Twycross and Dudley Zoo, Mecca Bingo, Webbs Garden Centre and Alton Towers amongst others.

We can offer a bespoke solution to most overhead glazing problems, regardless of the industry or demographic of the site.





Railways

Howells has vast experience in railway station refurbishment. Stations we have worked on include Windsor Royal, Temple Meads, Melton Mowbray, Loughborough, Shrub Hill, Stoke, and Kettering.

The criteria to be taken into account when working on railway stations is complex; the main consideration being that stations are never closed. We have worked through the night to accommodate clients requirements. We have worked through the night to accommodate clients requirements. The type of work we have carried out includes removing old and reinstating overhead glazing using heritage and current patent glazing bars, installing canopies, curtain walling and specialist glazing. An example of this is at Windsor Royal which features a leaded semi-hemispherical dome.

Domestic Installations

Domestic installations are a key part of our business too, these range from swimming pool enclosures to rooflights and patent glazing. We work closely with the aesthetics of the existing premises and the clients end vision.

All our projects start with the client's concept and our aim, with the help of our technical sales, contracts and drawing office is to produce drawings for approval that mirrors this idea as closely as possible.

This dedication to an aesthetically pleasing, workable solution carries through to our fully trained installation team, to provide a fully installed contract delivered on time and on budget.



We comply with the following standards:

BS EN 1999-1-1:2007+A2:2013.

Eurocode 9: Design of aluminium structures. General structural rules.

BS EN 1999-1-3:2007+A1:2011.

Eurocode 9: Design of aluminium structures. Structures susceptible to fatigue.

BS EN 1999-1-4:2007+A1:2011.

Eurocode 9: Design of aluminium structures. Cold-formed structural sheeting.

BS EN 1999-1-1:2007+A2:2013.

Eurocode 9: Design of aluminium structures. General structural rules.

BS 952-1:1995. Glass for glazing. Classification.

BS EN 755-9:2008.

Aluminium and aluminium alloys. Extruded rod/bar, tube and profiles. Profiles, tolerances on dimensions and form.

BS EN ISO 7599:2010.

Anodizing of aluminium and its alloys. General specifications for anodic oxidation coatings on aluminium.

BS 5516-1:2004.

Patent glazing and sloping glazing for buildings. Code of practice for design and installation of sloping and vertical patent glazing.

BS 5516-2:2004.

Patent glazing and sloping glazing for buildings. Code of practice for sloping glazing.

BS 6206:1981.

Specification for impact performance requirements for flat safety glass and safety plastics for use in buildings.

BS EN 12150-1:2000.

Glass in building. Thermally toughened soda lime silicate safety glass. Definition and description.

BS EN 12150-2:2004.

Glass in building. Thermally toughened soda lime silicate safety glass. Evaluation of conformity/Product standard.

BS EN 12600:2002.

Glass in building. Pendulum test. Impact test method and classification for flat glass.

BS 6262:1982. Code of practice for glazing for buildings.

BS 6262-1:2005.

Glazing for buildings. General methodology for the selection of glazing.

BS 6262-2:2005.

Glazing for buildings. Code of practice for energy, light and sound.

BS 6262-3:2005.

Glazing for buildings. Code of practice for fire, security and wind loading.

BS 6262-4:2005.

Glazing for buildings. Code of practice for safety related to human impact.

BS 6262-6:2005.

Glazing for buildings. Code of practice for special applications.

BS 6262-7:2005.

Glazing for buildings. Code of practice for the provision of information.

BS EN 12206-1:2004.

Paints and varnishes. Coating of aluminium and aluminium alloys for architectural purposes. Coatings prepared from coating powder.






Howells

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