



# Architectural Systems



# Company Profile

GDL is a privately owned manufacturer and supplier of a large range of louvre systems, air diffusers, grilles, natural ventilation systems, brise soleil and dampers. From our head office in Glossop, Derbyshire and manufacturing facility in Sheffield, GDL has serviced the built environment industry for over 30 years working with designers, architects and contractors across the UK and overseas.

GDL offers a vast wealth of experience in technical, manufacturing and product development fields, ensuring our customers are supplied with the choice of products most suited to their requirements. Our comprehensive regional sales representation across the UK and Ireland offers a wealth of expertise and knowledge across the product range.

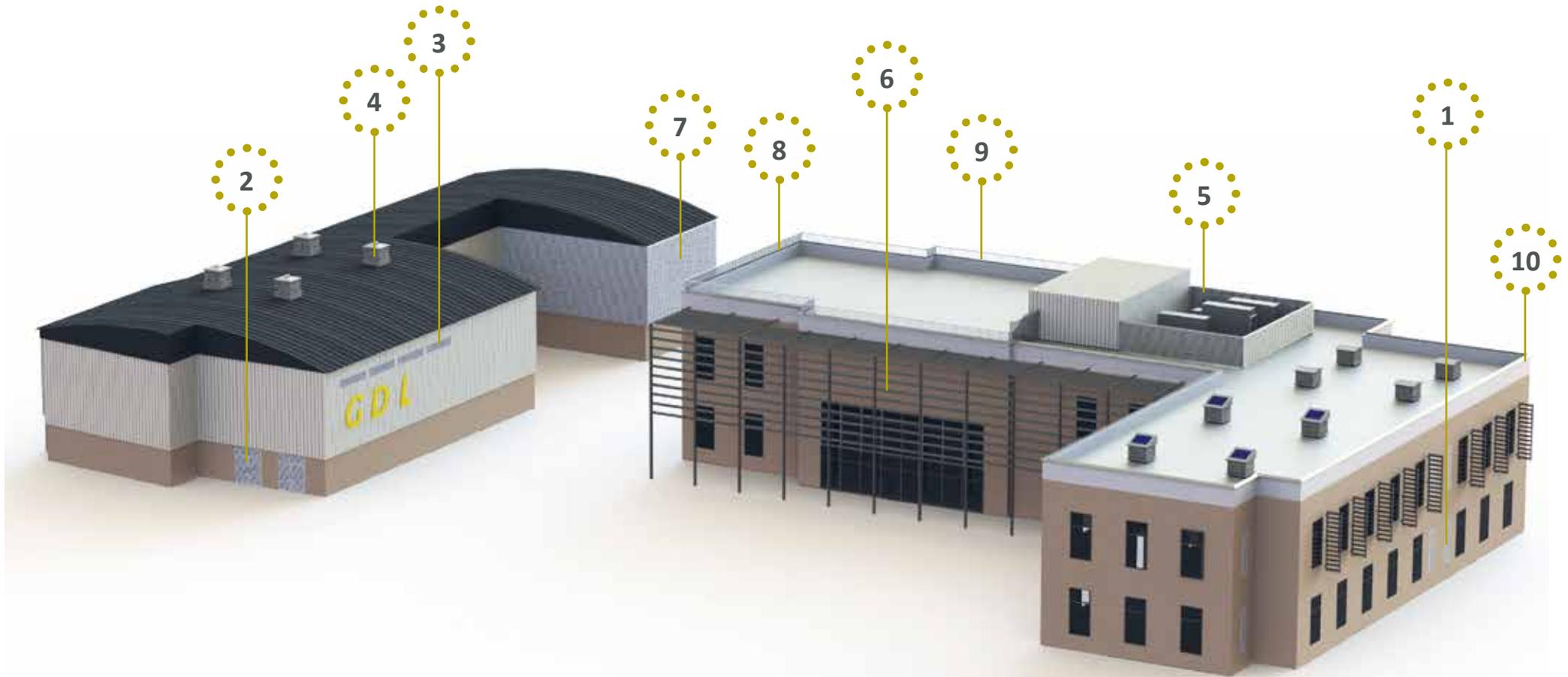
Focused on ensuring the highest level of customer satisfaction, our products are manufactured to the highest quality, produced in line with internationally recognised accreditations such as ISO 9001 and ISO1400.

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# Architectural Systems

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## GDL Architectural Systems

The GDL Architectural Systems encompass a vast range of Louvre Systems and Brise Soleil. Our range of louvres offer excellent functionality allowing the necessary aesthetics, ventilation requirements, rain defence and aerodynamic performance.

Our Architectural Systems include Weather Louvres, Architectural Doors, Penthouse Turrets, Louvre Screening, Cladding, Balustrade Systems and Decorative Grilles. We also offer Horizontal and Vertical Brise Soleil Systems that are manufactured to reduce solar gain through glazing in any commercial or public buildings.

All our products are manufactured in our Glossop and Sheffield factories giving us complete control over the quality of our production processes and also lead times. Our specialist manufacturing capability means we can offer non-standard bespoke product variations to meet our customers' exact requirements.

The materials we use in manufacture are steel and aluminium, either of which can be powder coated to standard non-metallic RAL Classic or BS 4800 colours. We also offer an anodised finish to aluminium and galvanised finish to mild steel. We have a large selection of optional extras for all our product types.

### Key Features of our Architectural Systems

- We offer full turnkey packages from design and manufacture to delivery and installation. We also offer an in-house design team for bespoke system requirements.
- Our products are highly adaptable to suit any specific requirements.
- Excellent functionality allowing the necessary specified and designed requirements.
- Aesthetically attractive finish.



## Architectural Weather Louvres



**WL30 Weather Louvre**

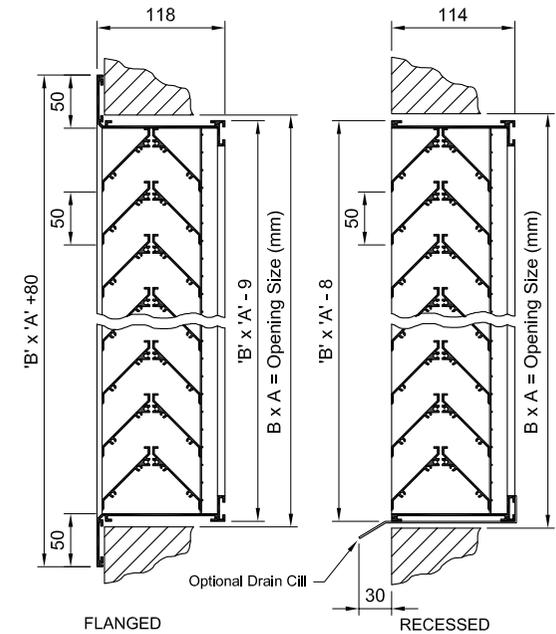
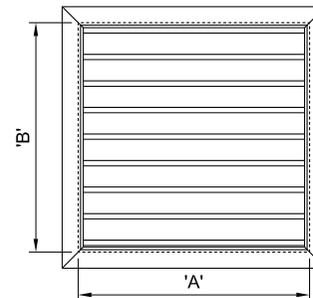
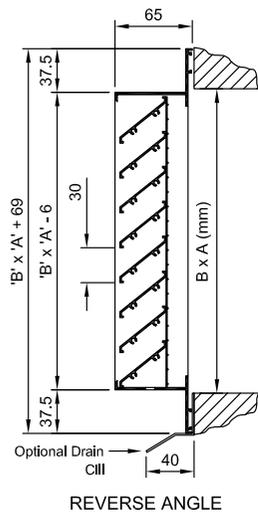
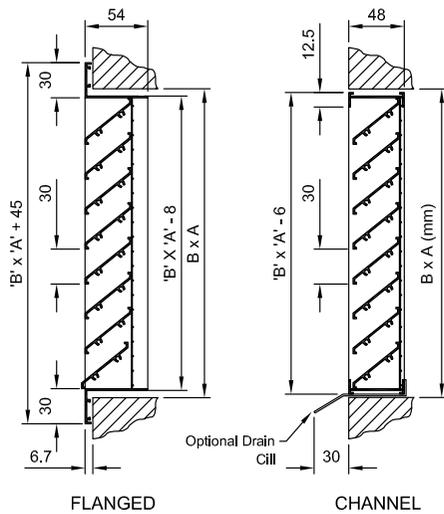
With a blade pitch of just 30mm, this is the smallest in the GDL range and the most competitively priced. Excellent weathering characteristics combined with high free area of up to 50%. Designed primarily for the 150 x 150 to 2000 x 1200 size range. Concealed rear blade supports prevent blade sag presenting an aesthetically pleasing appearance.



**DB50 Weather Louvre**

For intake or extract air, the 45° blades are fixed at 50mm centres and arranged in chevron formation to offer higher levels of rain defence effectiveness.

Heavy duty construction allows large panels to be produced with unbroken blades. Larger areas can be covered using multiple panel assemblies which will incorporate narrow line visible mullions.



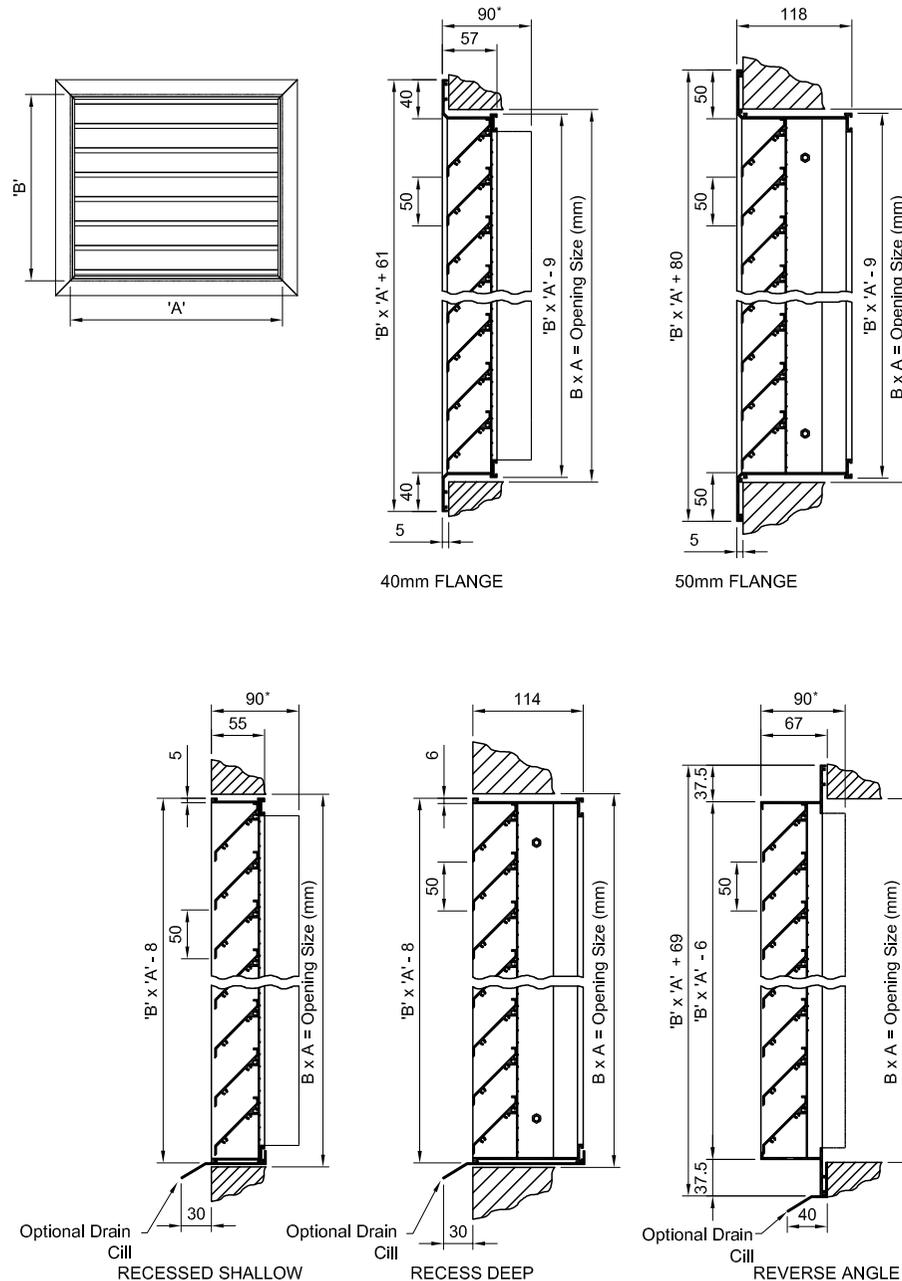


**WL50 Weather Louvre**

The 50mm blade pitch range is suitable for both small and medium opening size requirements from 600 x 600 to 3000 x 2000 in a single panel with unbroken blades. The concealed rear blade support mullion lends a high degree of rigidity and robustness to its construction. This louvre provides good weathering characteristics with a free area up to 46%.

The 50mm louvre system has been tested by BSRIA to European standard EN13030:2002 and achieves Class C - (80 - 94.9 % effectiveness).

Tested to EN13030:2002 the following aerodynamic coefficient is achieved:  
Intake ~ 0.253.



**WL75 Weather Louvre**  
**WLHP High Performance Weather Louvre**

Architectural Weather Louvres

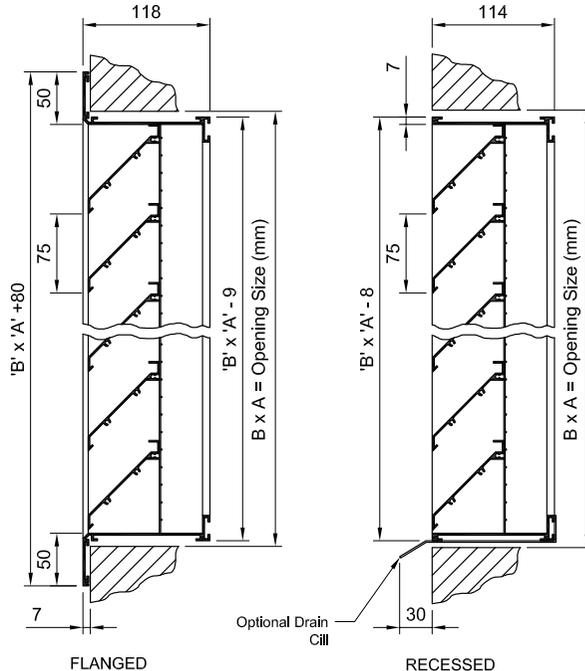


**WL75 Weather Louvre**

The 75mm blade pitch aligns with standard brickwork courses, and its use spans from small to large sized openings. Available from 600 x 600 to 3000 x 2000 in a single panel with unbroken blades. Long continuous needs can be satisfied by using multiple panels with either ultra narrow vertical mullions or concealed mullions for continuous effect. Average free area is 48%.

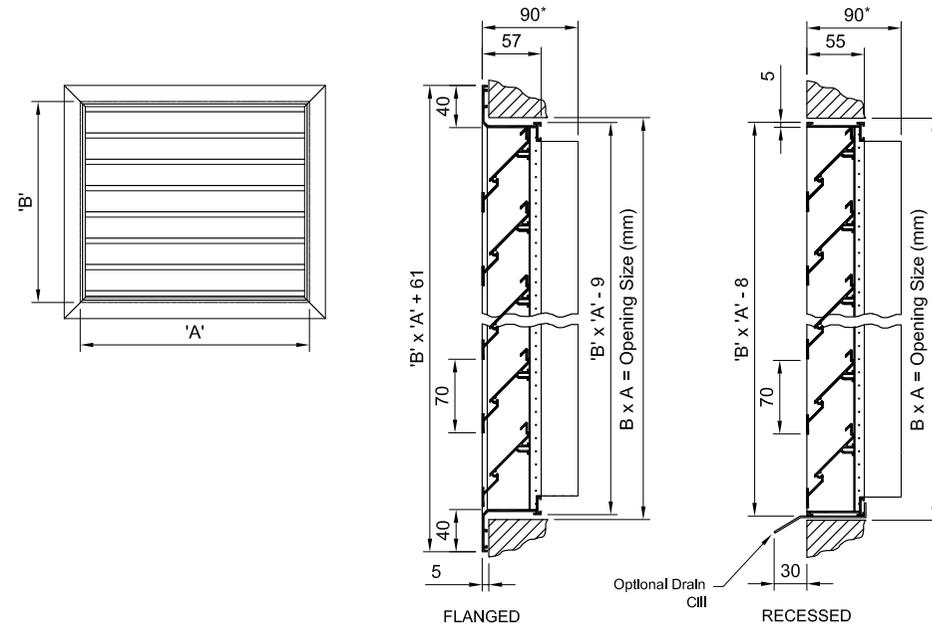
The 75mm louvre system has been tested by BSRIA to European standard EN13030:2002 and achieves Class C - (80 - 94.9 % effectiveness).

Tested to EN13030:2002 the following aerodynamic coefficient is achieved:  
 Intake ~ 0.258.



**WLHP High Performance Weather Louvre**

The blades are fixed at 70mm centres providing excellent integral rain defence features. The lipped design to the bottom of each blade provides a catchment area for rainwater preventing run off to the louvre blades below. The rain water is naturally evacuated off the ends of the blades. Available from 600 x 600 to 3000 x 2000 in a single panel with unbroken blades.





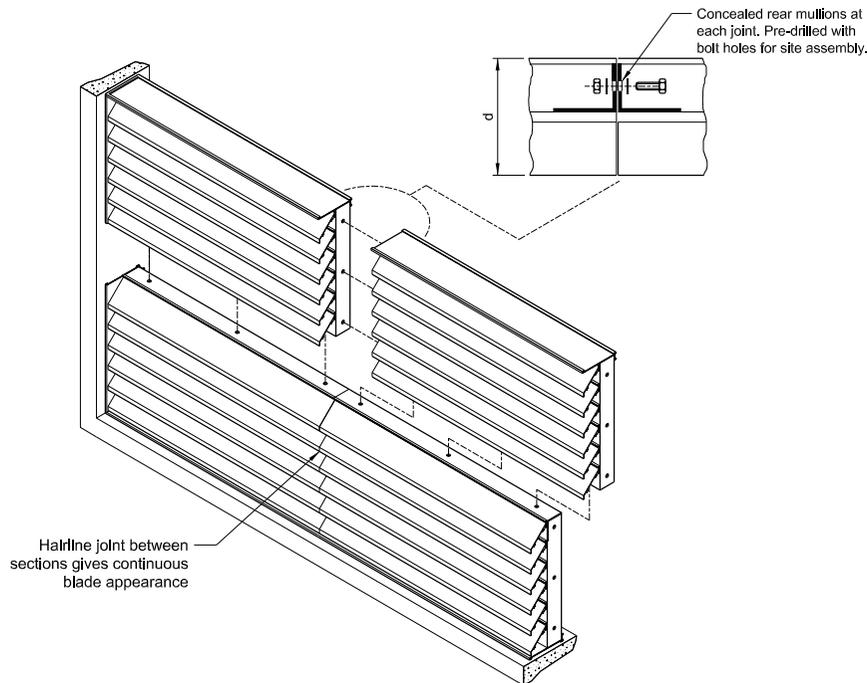
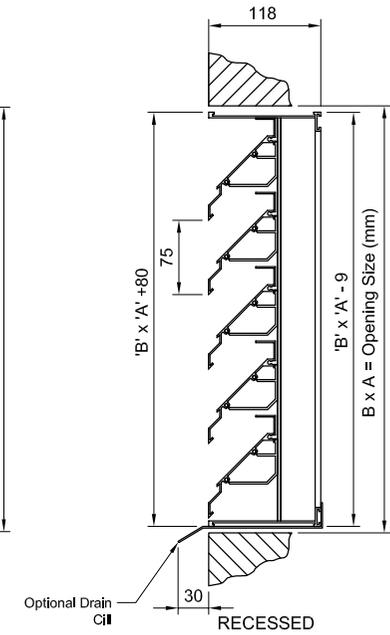
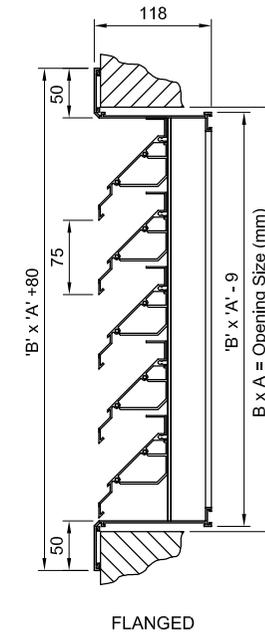
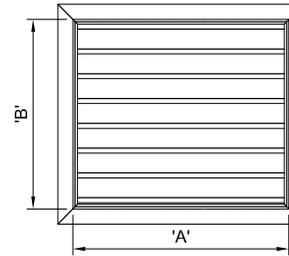
Craigmillar Library, Edinburgh

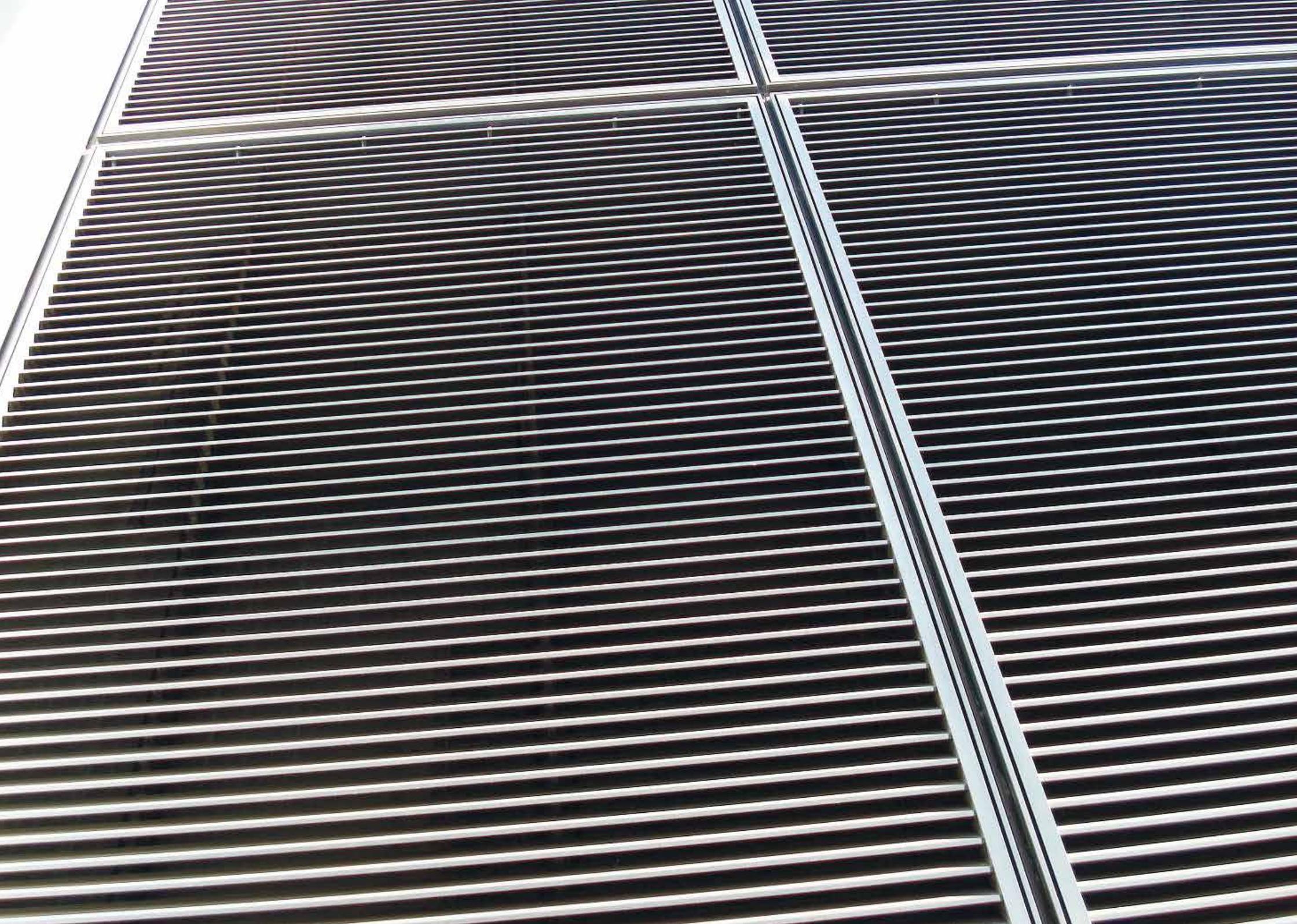
## WL RD Rain Defense Weather Louvre



### WL RD Rain Defense Weather Louvre

The Special Performance blade is pitched to 75mm centres and aligns with standard brickwork courses, and its use spans from small to large sized openings. The SP 75 Louvres provide excellent rain defence and air flow performance. Available from 600 x 600 to 3000 x 1700 in a single panel with unbroken blades. Long continuous needs can be satisfied by using multiple panels with either ultra narrow vertical mullions or concealed mullions for continuous effect. Average free area is 48%.





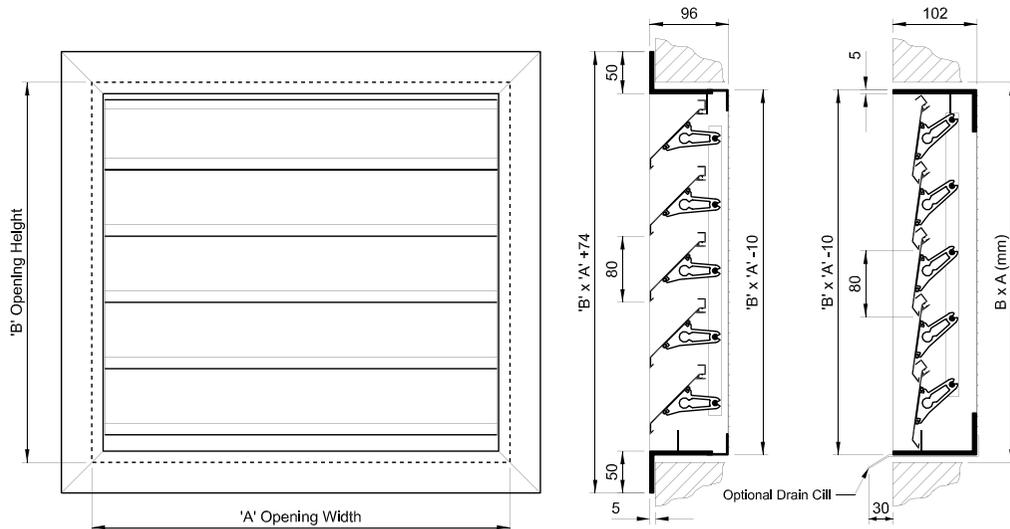
## MBL Moveable Blade Louvre



### MBL Moveable Blade Louvre

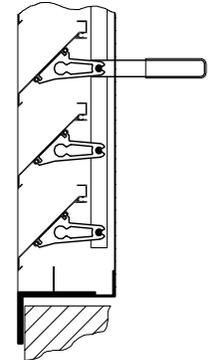
Moveable blade louvre series facilitates the control of the air volume for intake and exhaust applications. When fully open the louvre blades are in the conventional 45° position thus providing the same good weather resistance characteristics as a standard weather louvre. The blades can then be positioned anywhere between open and fully closed to suit requirements. In the fully open position the free area is approximately 46%.

Manufactured from 300 x 300 to 1200 x 2000 in a single unit. Visible face mullions are incorporated when width exceeds 1200mm to a maximum width of 2500mm. Larger sizes are available in multiple units. Weight is approximately 22.5kg/m<sup>2</sup>.

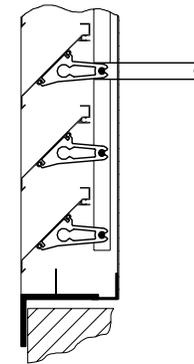


### Operation Type

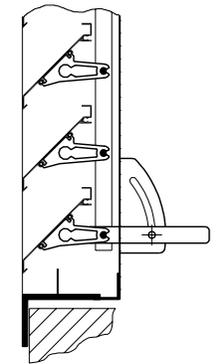
0	Rear linkage only
1	Simple rear lever device
2	Window pole type operation
3	Rear hand locking quadrant
4	Remote cable actuation
5	Electric motor operation



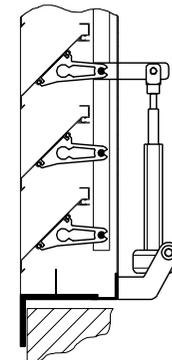
1



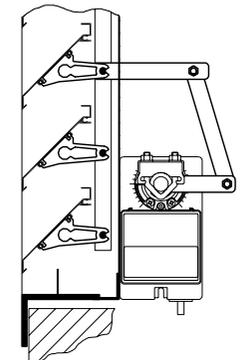
2



3



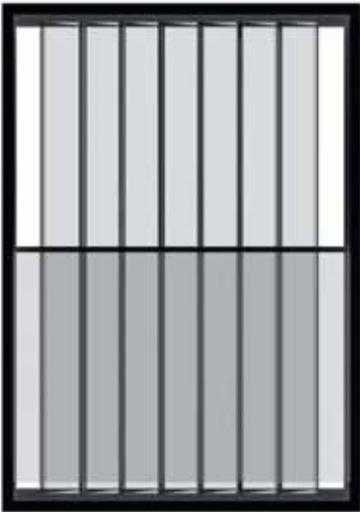
4



5



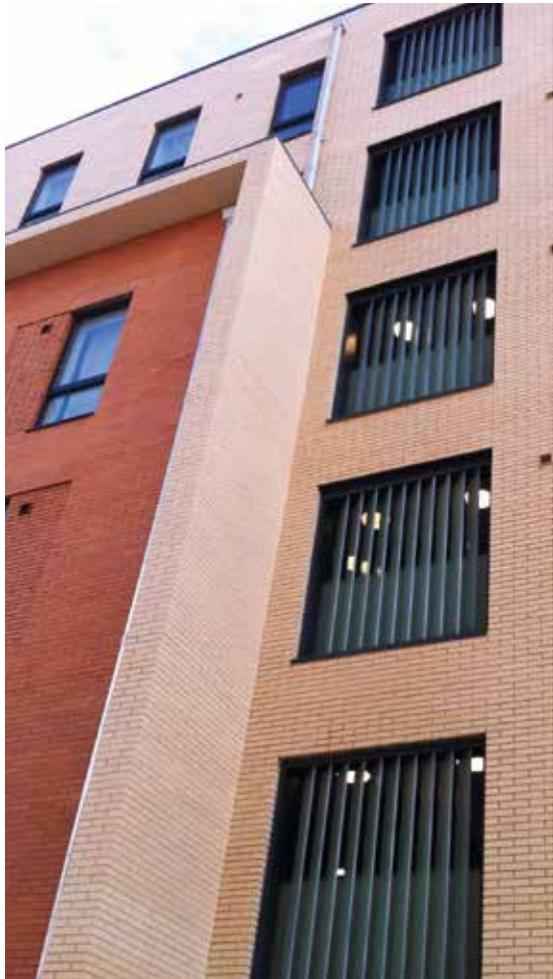
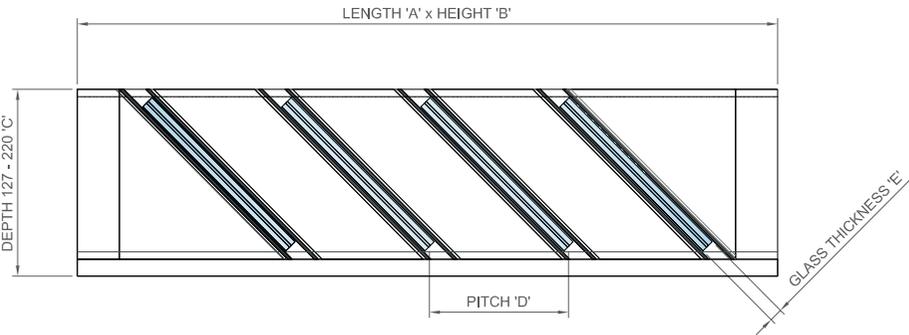
GBL Glass Bladed Louvres



**GBL Glass Bladed Louvres**  
The Glass bladed system was developed to provide privacy screening coupled with natural ventilation requirements. The blade thickness can vary from 6 up to 15mm depending on designers requirements. The pitch between the blades can vary from 25mm up to 250mm with blades fixed vertically or horizontally to meet the aesthetic requirements of designers and architects.

The units are constructed from extruded aluminium frame recessed into the opening and can be glazed into conventional curtain walling system. The glass blades insert into the frame individually for ease of installation and maintenance.

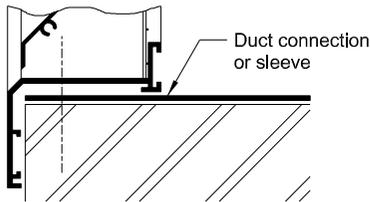
Units are available in sizes from 500 x 500 up to 2500 x 2500 depending on glass specification. Glazed in glass balustrades or safety barriers.



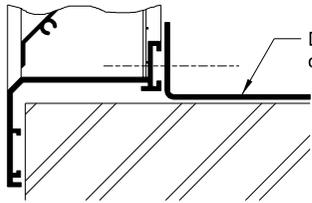
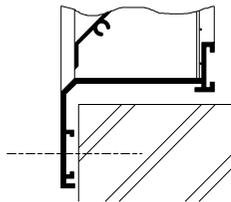
Bermondsey Spa Luxury Apartments, London



## Available Options: Fixing Methods



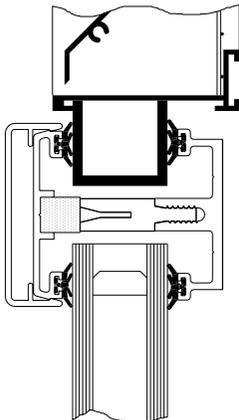
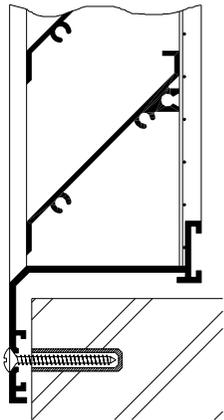
Duct connection or sleeve



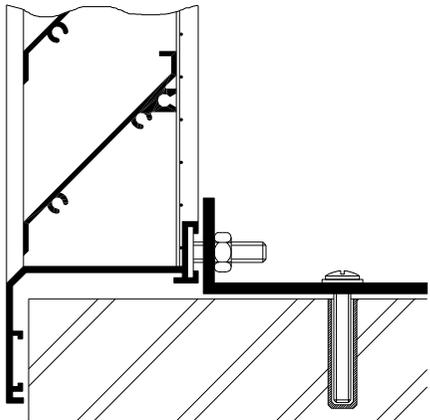
Duct connection or sleeve

Fixings by installers via positions indicated in situ. From the face of the louvre it is possible to fix between the louvre blades via the side frames.

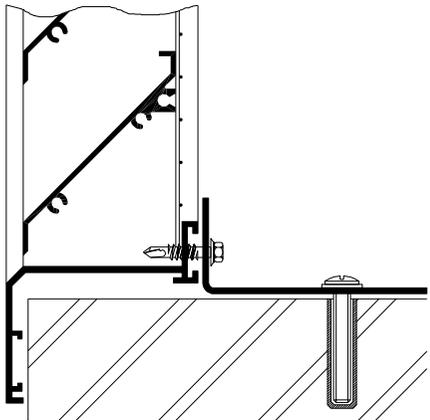
Pre-punched or drilled flange holes to take No.8 self-tapping screws. Hole position at the discretion of the factory, unless stated otherwise.



25mm or 28mm glazing bar welded around the perimeter of louvre frame. Suitable for double glazing frame applications.



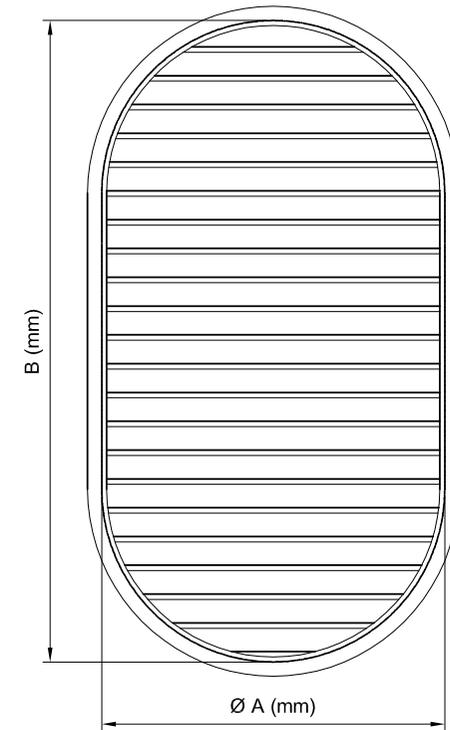
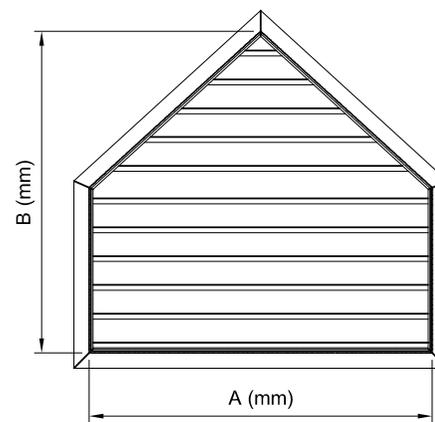
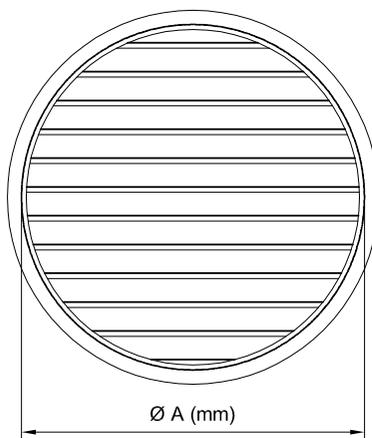
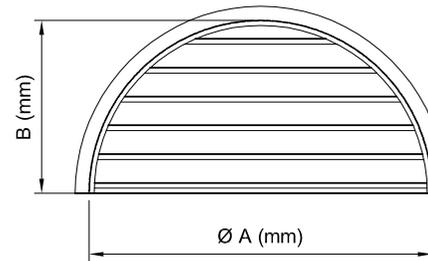
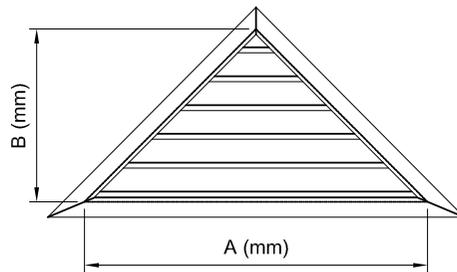
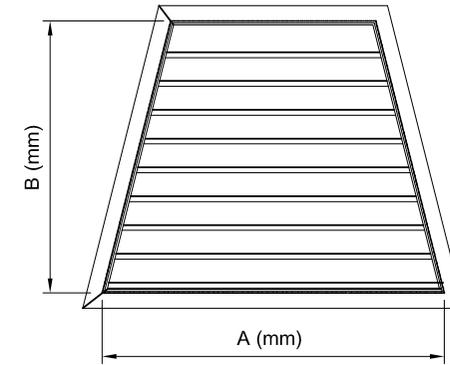
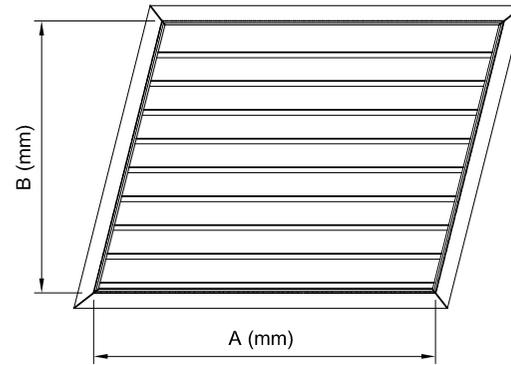
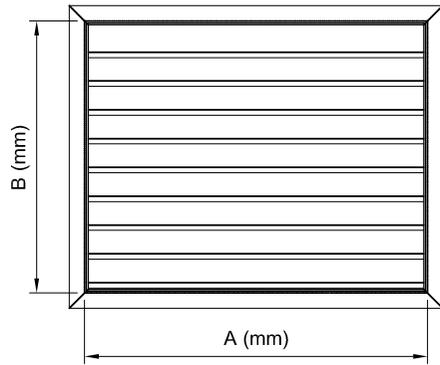
Fixing style for the larger sized louvre panel with either flanged framing or recess style frame. Specially formed 'Tee Bolts' traverse within the track at the rear of frame. Bolts and brackets supplied but quantity at the factory's discretion.



Fixing style for small to medium sized louvre panels. Brackets are of 1.6mm galvanised sheet steel folded but undrilled. Screws and bolts supplied by others. Brackets should be affixed direct to rear of louvre frame by self-tapping screws. The quantity of brackets is at the factory's discretion (minimum 4 No.).



## Available Options: Shapes



\* Minimum angle on mitres 15°

## Door Sets





**SLD50 Single Leaf Louvre Door**  
**DLD50 Double Leaf Louvre Door**

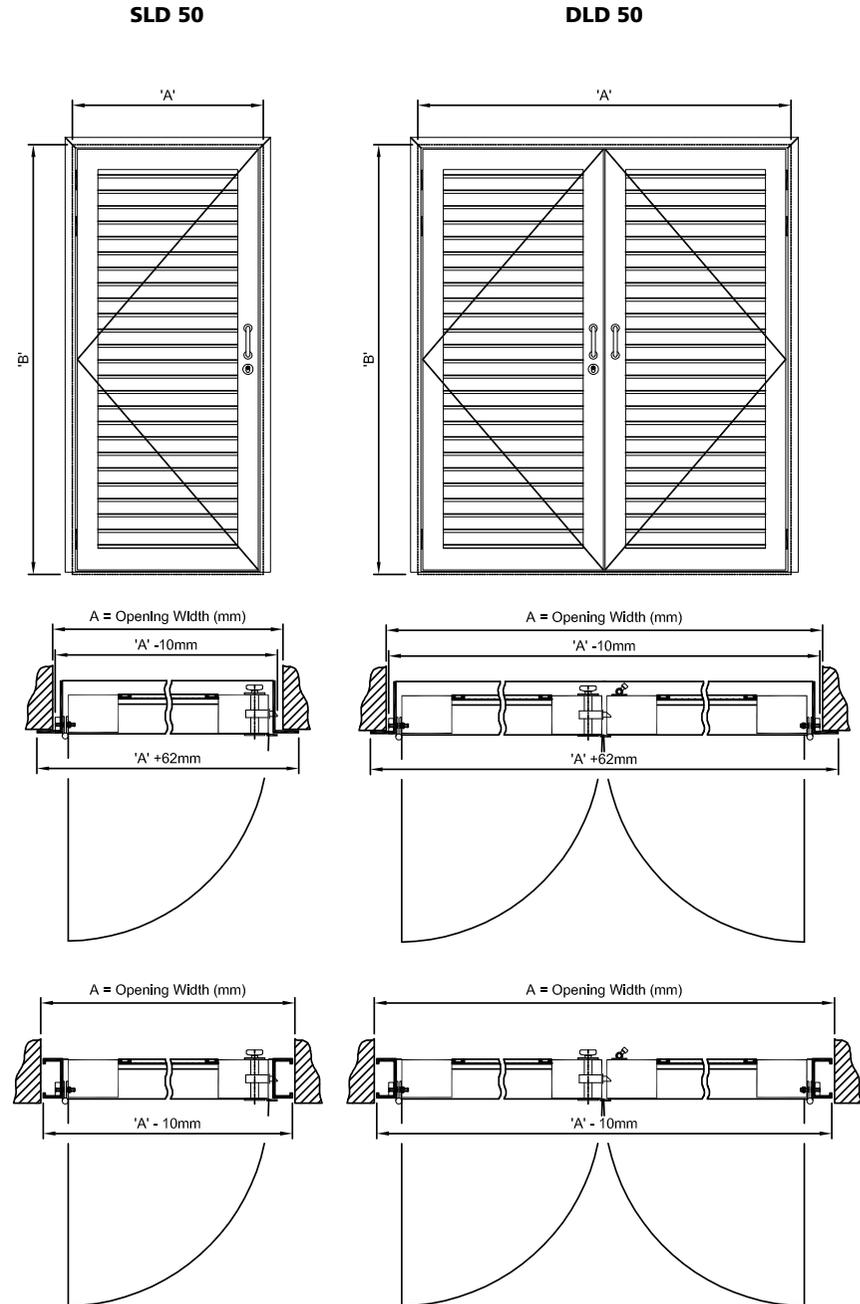
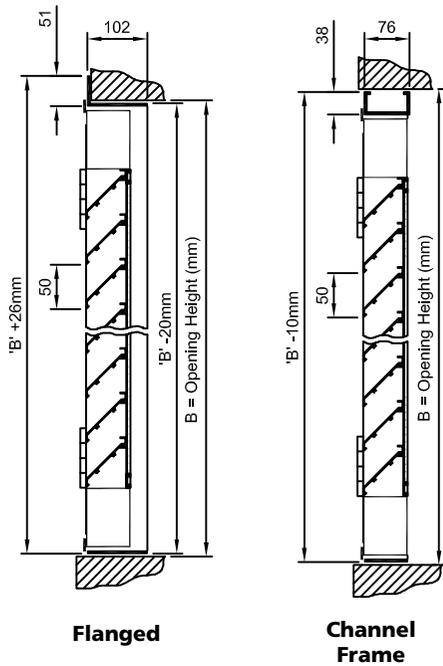
**Door Sets**



**SLD50 Single Leaf Louvre Door**  
**DLD50 Double Leaf Louvre Door**

For intake or extract air, the louvre doors are available in 50mm pitch and in single or double leaf in 50mm pitch and in single or double leaf. Either with flanged frame or recessed frame, the louvre doors are robustly manufactured with optional threshold details.

Door furniture and ironmongery can be provided to suit specific needs and generally include optional mortice locks, door stays, panic push bars and handles.

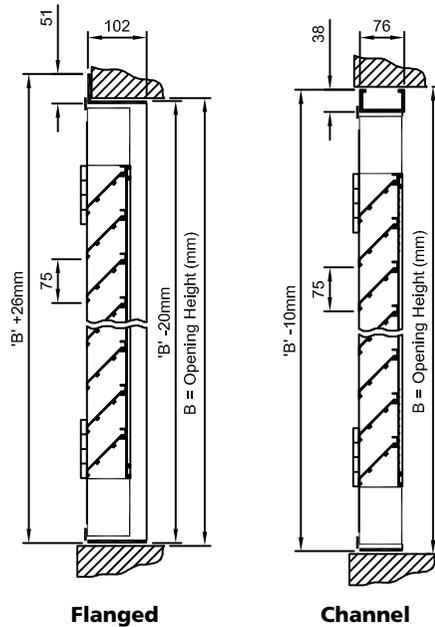




**SLD75 Single Leaf Door**  
**DLD75 Double Leaf Door**

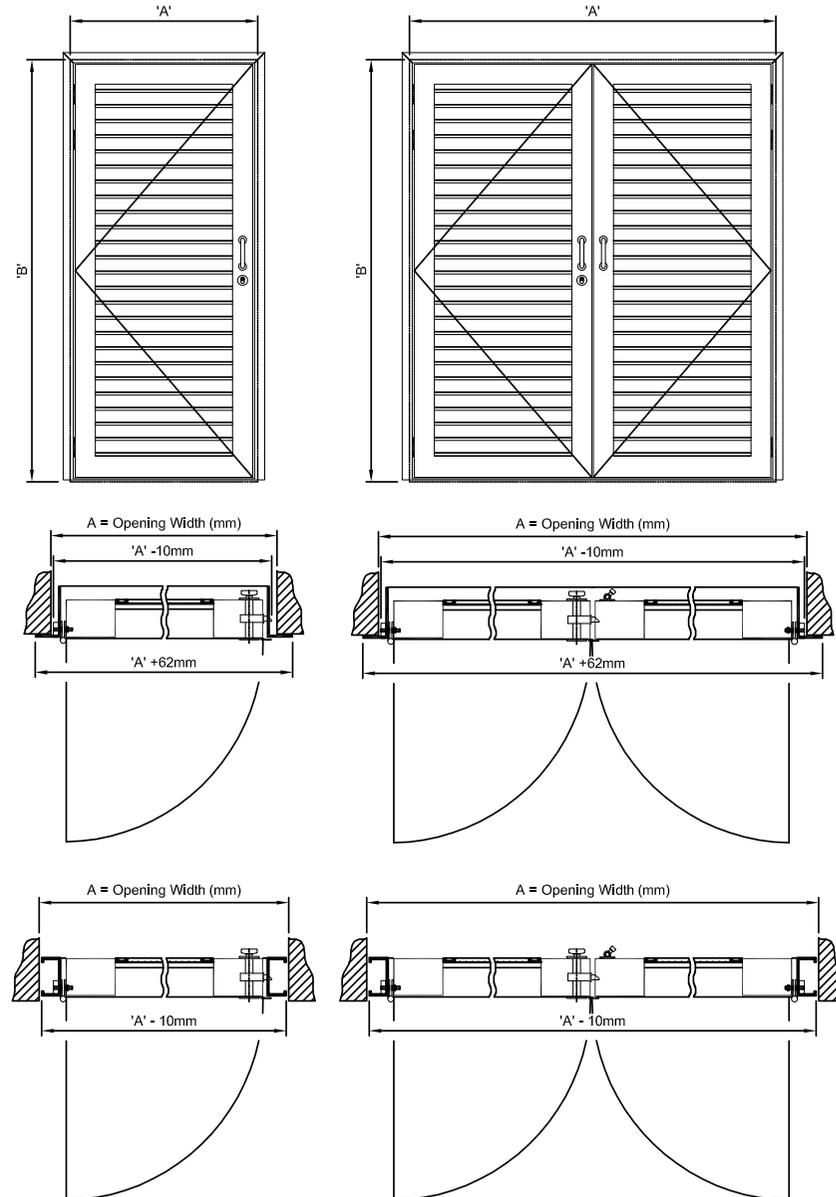
For intake or extract air, the 75mm pitch blades provide better airflow and aesthetics requirements when installed within brick work openings.

Door furniture and ironmongery can be provided to suit specific needs and generally include optional mortice locks, door stays, panic push bars and handles.



**SLD 75**

**DLD 75**



## ALD Acoustic Louvre Doors



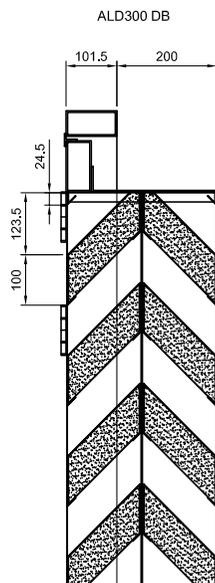
### ALD Acoustic Louvre Doors

To dampen and reduce noise breakout the acoustic louvred door provides the much needed performance for enclosed plantrooms.

The door is designed to attenuate medium and high frequency noise from intake and exhaust plant room openings.

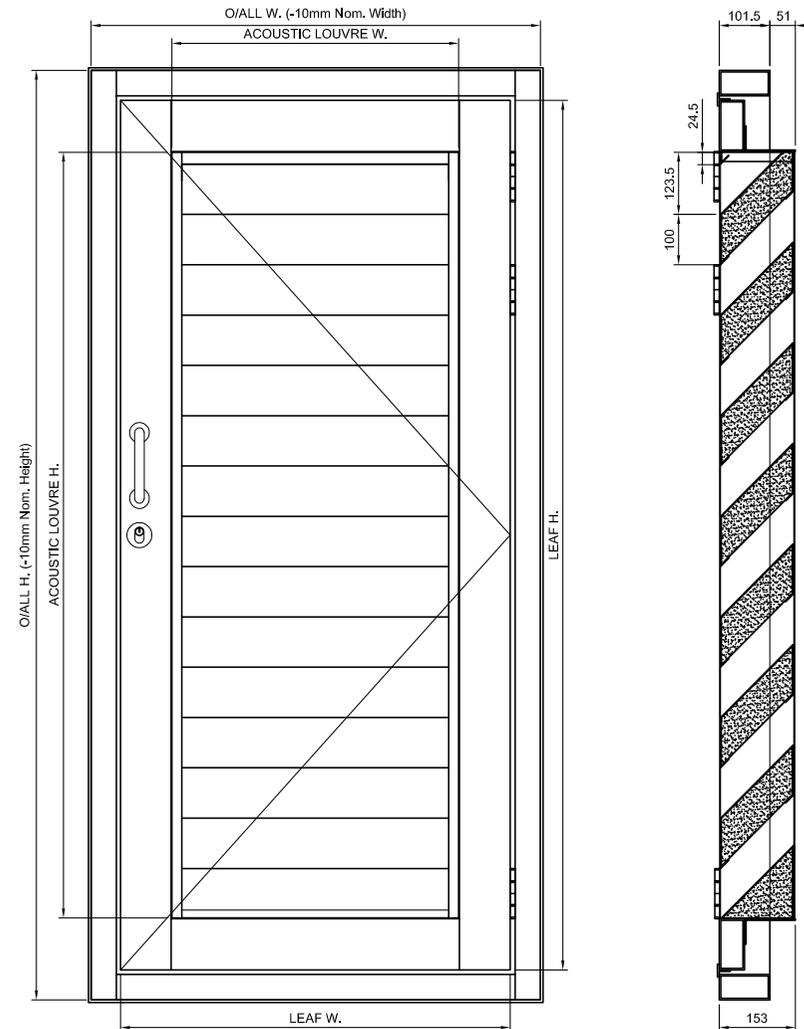
The level of attenuation required will dictate either conventional 150mm single bank acoustic louvres or 300mm double bank louvres providing approximately 40% free area.

See acoustic note data on page 30.



### Double Banked Acoustic Door

### ALD 150 SB





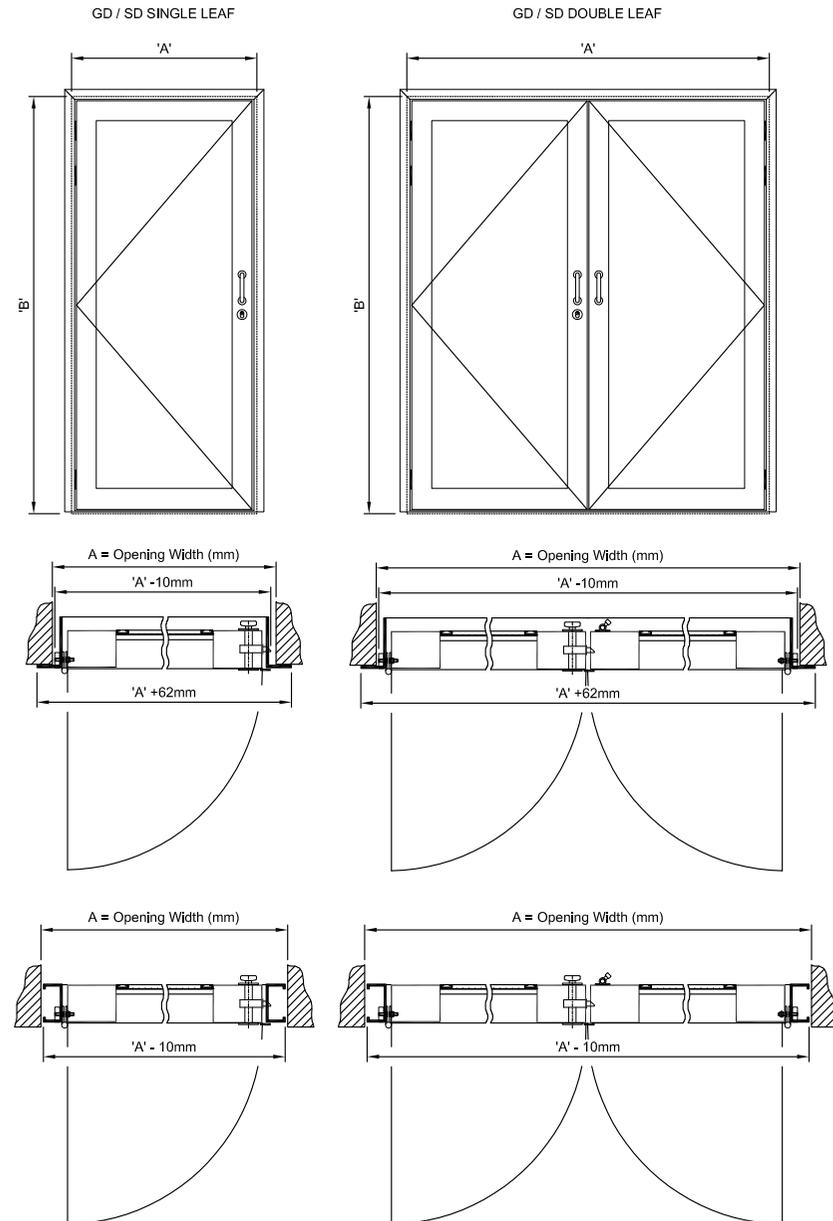
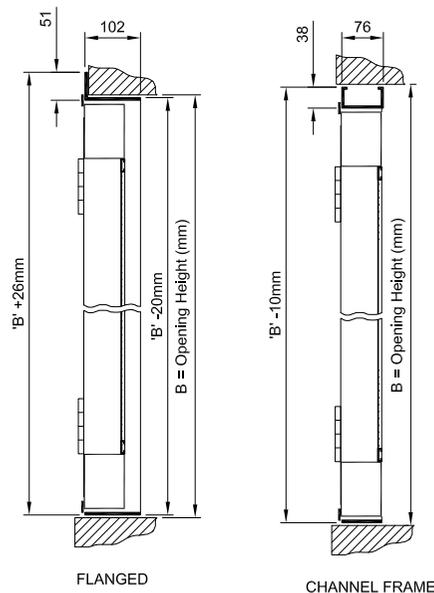
### GD/SD Glazed & Solid Doors

Aluminium framed doors can be manufactured to incorporate solid cores or glass panels. The solid cores can be fully insulated or perforated (transfer doors) to allow air to flow through. Decorative cores from our standard range can also be integrated to provide aesthetic requirements.

The glass panels can be manufactured to various glass and safety specifications as well as various colours.

Fire escape doors are supplied complete with panic push bars. All exit doors are supplied complete with appropriate signage as required by BS EN1125.

Door furniture and ironmongery can be provided to suit specific needs and include optional mortice locks, door stays, panic push bars and handles.



## Door Entry and Furniture Options

### Mortice Locks

Standard Euro Cylinder Mortice Case complete with Euro Profile Cylinder and Turn or customer specification can be accommodated.

### Door Stays

A range of automatic and restrictive door stays are available as optional extras. GDL can accommodate the exact requirements of customers and or specifications.

### Panic Push Bars

Standard modular push bars, push bars with push pad, touch pad and Mortice push bars are available as optional extras.

### Handles

A range of pull handles, lever handles and door knobs can be accommodated onto the doors to suit customer or specification requirements.

### Keyless Entry

Ranging from standard keypad locks to smart card and key fobs, GDL can meet the requirements of customers and specifications.

### Door Closers

Automatic door closers are available as an optional extra to meet required specifications.

### FB2 Deadlock & Keys

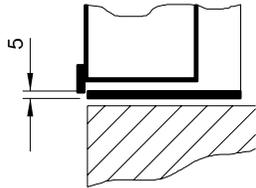
Fire brigade 2 Mortice lock and keys can also be provided to meet specifications.

### Hasp and Brenton Locks

Heavy duty Hasp and Brenton locks are available as an optional extra.

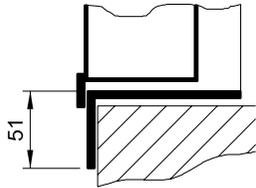


## Fixing and Threshold Options:



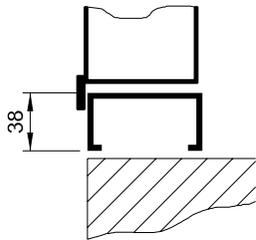
### Threshold 'F'

5.0mm thick flat threshold plate can be fitted to either frame style A1 or C1.



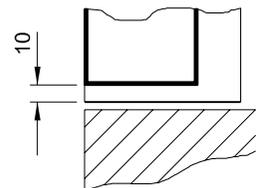
### Threshold 'A'

51mm flanged threshold matching frame style A1.



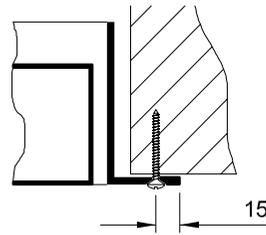
### Threshold 'C'

38mm channel threshold can be fitted to either frame style A1 or C1.



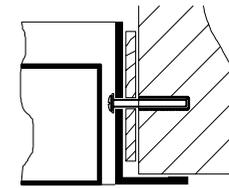
### Threshold '0'

No threshold required. Frame is supplied with removable transit bar.



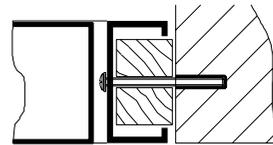
### Frame A1 '+1' Fixings

Pre-drilled  $\text{\O}4.5\text{mm}$  countersunk holes in flanges to suit No.8 screws. Hole centres at factories discretion, or to suit specific requirements.



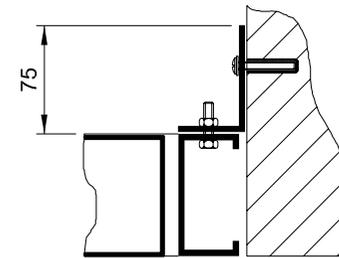
### Frame A1 '+0' Fixings

Fixings through frame into surrounding structure by others. Frame should be packed out with suitable shims at fixing points to avoid distortion.



### Frame C1 '+0' Fixings

Fixings through frame into surrounding structure by others. Frame should be packed out with suitable shims at fixing points to avoid distortion.



### Frame C1 '+2' Fixings

Fixings via rear angle lugs bolted to rear of frame. Lugs are supplied loose for site fixing. Lugs are complete with slotted holes to suit M6 fixings. Frame drillings and M6 fixings by others.

A close-up photograph of a white louvre blade. The top edge of the blade features a dark, perforated metal mesh designed for acoustic absorption. The mesh consists of a regular grid of small, circular holes. The blade is set against a dark background, and the lighting highlights the texture of the mesh and the smooth surface of the louvre.

Acoustic Weather Louvres

**AL150 SB Single Bank Acoustic Louvre**  
**AL300 DB Double Bank Acoustic Louvre**

Acoustic Weather Louvres



**AL150 SB Single Bank Acoustic Louvre**

Suitable for applications where depth is critical. For supply or extract air, the Acoustic Louvre is designed to attenuate medium and high frequency noise breakout from ductwork and plant room openings.

Cases and blades formed from Aluminium sheet. The attenuation material is glass wool faced with perforated sheet.

From 400 x 400 to 1200 x 2000 in a single panel, large units are available in multiple units which bolt together in situ.

Single Bank 18kg/m<sup>2</sup>.  
 Free area approximately 45%.



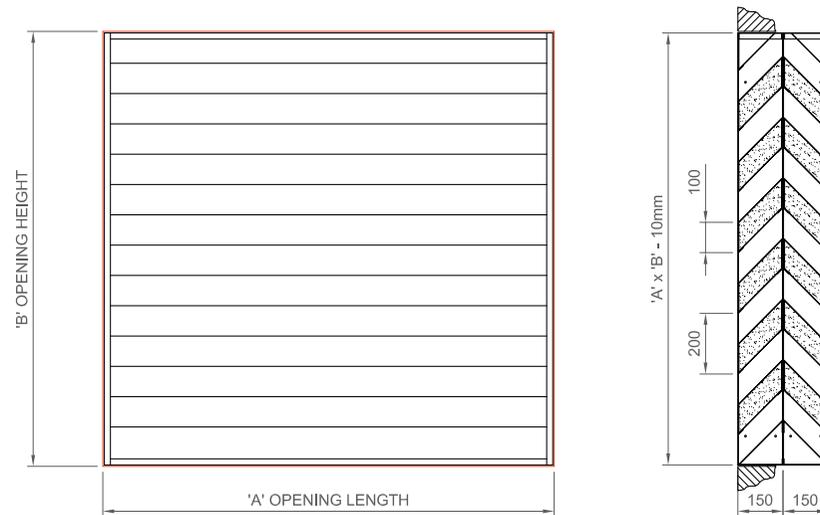
**AL300 DB Double Bank Acoustic Louvre**

The 'Chevron' profiled acoustic blades offer higher noise attenuation within a slim frame, the double bank 'Chevron' formation offers the optimum noise attenuation for supply or extract air.

Cases and blades formed from Aluminium sheet. The attenuation material is glass wool faced with perforated sheet.

From 400 x 400 to 1200 x 2000 in a single panel, large units are available in multiple units which bolt together in situ.

Double Bank 36kg/m<sup>2</sup>.  
 Free area approximately 45%.



**AL300 SB Single Bank Acoustic Louvre**  
**AL600 DB Double Bank Acoustic Louvre**

Acoustic Weather Louvres



**AL300 SB Single Bank Acoustic Louvre**  
 For supply or extract air, the Acoustic Louvre is designed to attenuate medium and high frequency noise breakout from ductwork and plant room openings. Available in single bank or, for higher levels of attenuation, double bank.

Cases and blades formed from Aluminium sheet. The attenuation material is glass wool faced with perforated sheet.

From 650 x 650 to 1200 x 2000 in a single panel, large units are available in multiple units which bolt together in situ.

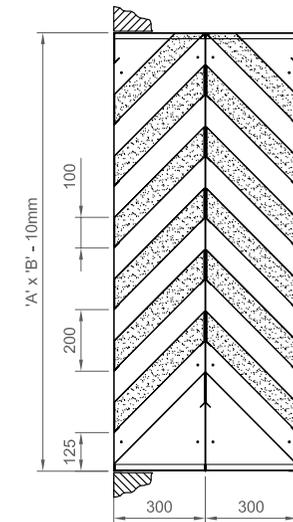
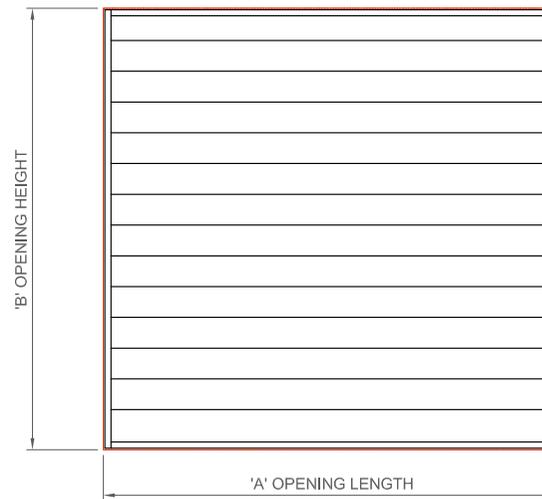
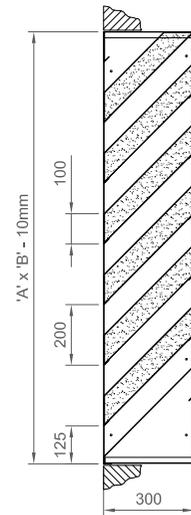
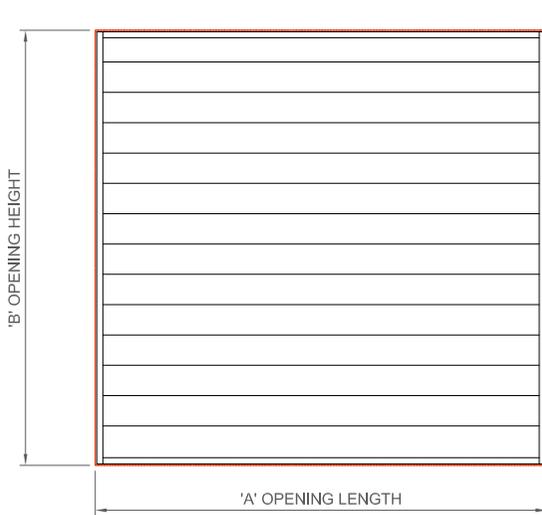
Single bank 26kg/m<sup>2</sup>  
 Free area approximately 40%.



**AL600 DB Double Bank Acoustic Louvre**  
 For supply or extract air. Cases and blades formed from Aluminium sheet. The attenuation material is glass wool faced with perforated sheet.

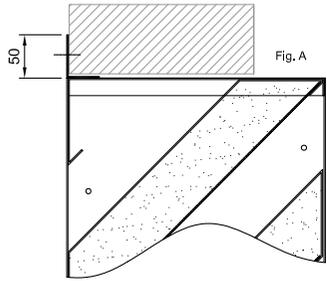
From 650 x 650 to 1200 x 2000 in a single panel, large units are available in multiple units which bolt together in situ.

Double bank 52kg/m<sup>2</sup>.  
 Free area approximately 40%.



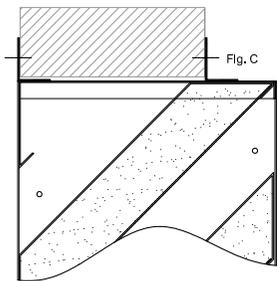
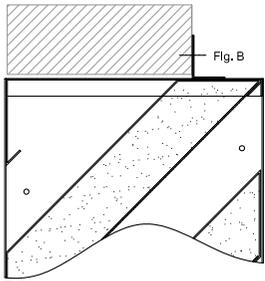
\* 3X 150SB (450mm deep) available for special requirements.

## Technical Performance Data and Fixing Options:



The loose flange option can be used as a fixing method as shown in figures A and B, cosmetically to mask irregularities in the builders work opening, or to perform both functions as depicted in Fig.C. In any event the flange component is finished to match the unit and is furnished undrilled unless otherwise requested. For large sized units the flange is supplied in sections.

To specify use fixing code +1 for the single flange option and code +2 for the double arrangement. The flange gauge is dependent upon the unit size.



Transmission Loss (Sound Reduction Index)								
Type	Hz	63	125	250	500	1K	2K	4K
150 Deep Single Bank		2	3	3	8	10	12	13
300 Deep Double Bank		4	4	6	14	18	24	25
300 Deep Single Bank		1	2	4	9	16	19	15
600 Deep Double Bank		4	5	6	18	20	27	31

Free Field Noise Reduction dB								
Type	Hz	63	125	250	500	1K	2K	4K
150 Deep Single Bank		8	9	9	14	16	18	19
300 Deep Double Bank		10	10	12	20	24	30	31
300 Deep Single Bank		7	8	10	15	22	25	21
600 Deep Double Bank		10	11	12	24	26	33	37

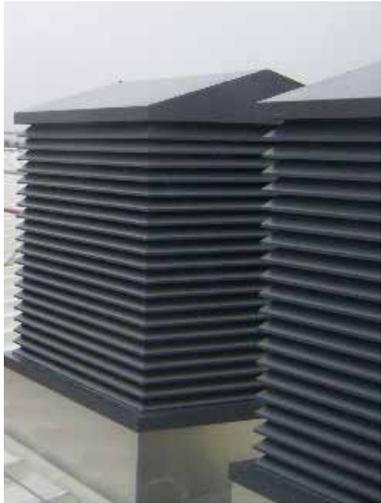
Transmission loss is the ratio in decibels of the acoustic energy transmitted through the louvre, stated as a function of frequency.

Free field noise reduction is the difference in decibels between the sound pressure level on the noise side and that measured on the opposite side at 1500mm from the louvre.





## Penthouse Turrets



### **PHT50 Penthouse Turret**

Turret louvres or 'penthouse louvres' are purposely designed for roof top installation providing the weathering protection of conventional sidewall louvres whilst reducing intake and exhaust velocities, pressure drops and noise to acceptable levels. There are virtually no size constraints and large continuous units in multiple sections can be produced.



### **PHT HP High Performance Penthouse Turret**

The high performance louvre blades offer better rain defence and air flow performance from the PHT50 system although both the systems offer the same 50% free area.



### **PHT RD Rain Defence Turret**

The deeper SP blades provide the additional weather protection to the turrets without compromising the airflow performance giving a free area of 48%.



### **PHTO Octagonal Turret**

Suitable for applications where depth is critical. Used in heritage sites or listed buildings to give the necessary aesthetics, the octagonal turrets are manufactured with faceted faces and secondary weather baffles. Clock tower and weather vaned units can be produced to special order.

## PHTC Circular Turret PHTS Special Penthouse Turret



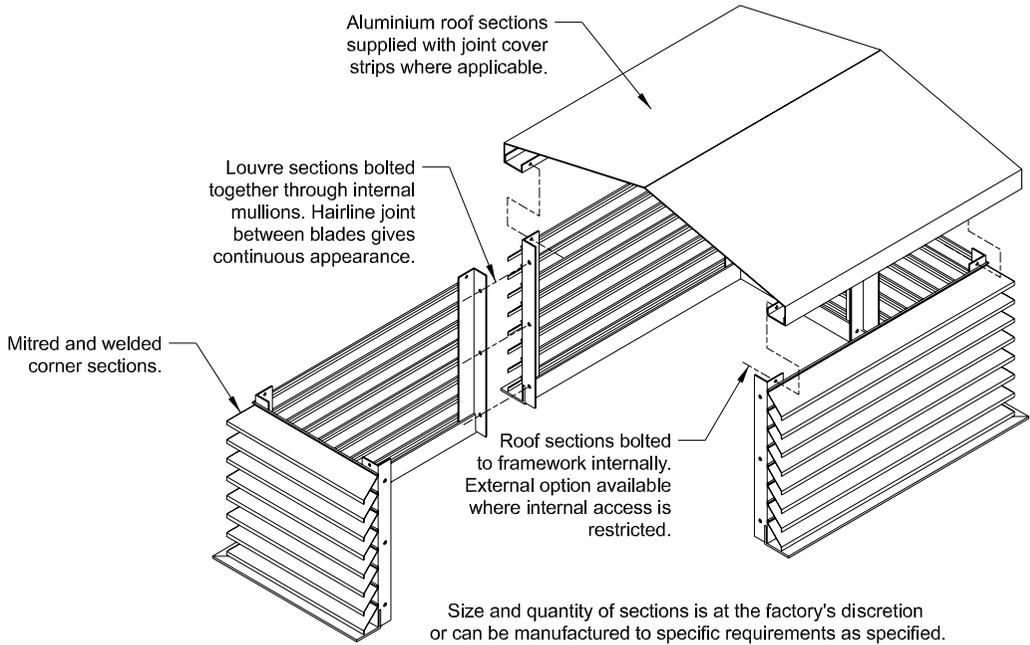
### PHTC Circular Turret

The aerodynamic geometry of the turret gives excellent exhaust properties to the unit compared to air intake. The geometry of the turret also plays an integral part in giving excellent weather protection. The unit is available for 700mm diameter circular upstand opening with the option of adding a boost fan powered off a solar PV cell mounted to the roof of the unit.



### PHTS Special Penthouse Turret

Special and multi faceted turrets are available for order, however as they are completely bespoke they take longer to produce. They can also be used for intake and exhaust of air as well as complete blanked units to provide aesthetics only.



## Available Options/Accessories:

### Roof Style

**Pyramid** – Shallow height cross creased from aluminium sheet. Maximum roof size 1300mm square.

**Apex** – Suitable for standard turret types. Roof can be any dimension, oversized units supplied with butt strap at joints.

**Mono pitched** – Typically used with 'Solarstore' turrets for the mounting of solar PV panels.

### Roof Access

**Fully removable** – Supplied with secret hidden roof bolt fixings.

**Hinged** – Roofs can be fitted with hinges to one side. GDL recommends combining roof stays or struts for safety.

**Gas struts** – Typically combined with hinged roofs, allows easy access into the turret.

**Access Panels** – Additional access panels can be integrated where turrets are tall and access via roof of turret is not feasible. Low level removable panels allow easy access to the inside of the turrets.

**Weather Vanes** – Various weather vanes from our standard range can be integrated to the turrets. Bespoke vanes can be fabricated upon request.

**Clock Towers** – Various clock face styles and a range of sizes available to suit requirements of turrets.



## Louvre Screening



**LS100 Louvre Screen**

Screen louvres provide the necessary privacy to plant areas, etc. They can be located at basement, ground, mid, or roof level. The blades can be fixed in a conventional 45° angle or inverted depending on the privacy screening requirements of designers and architects.

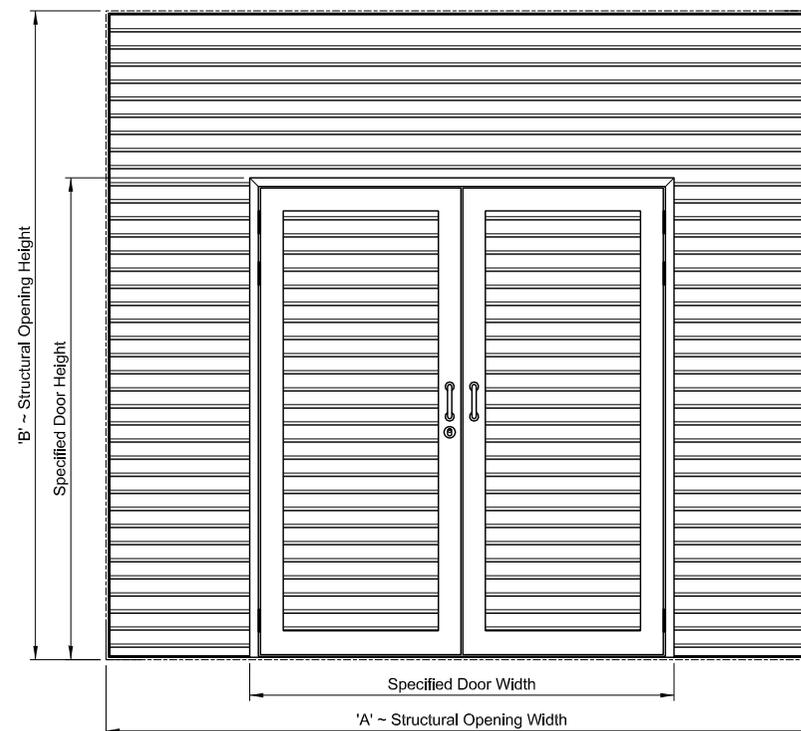
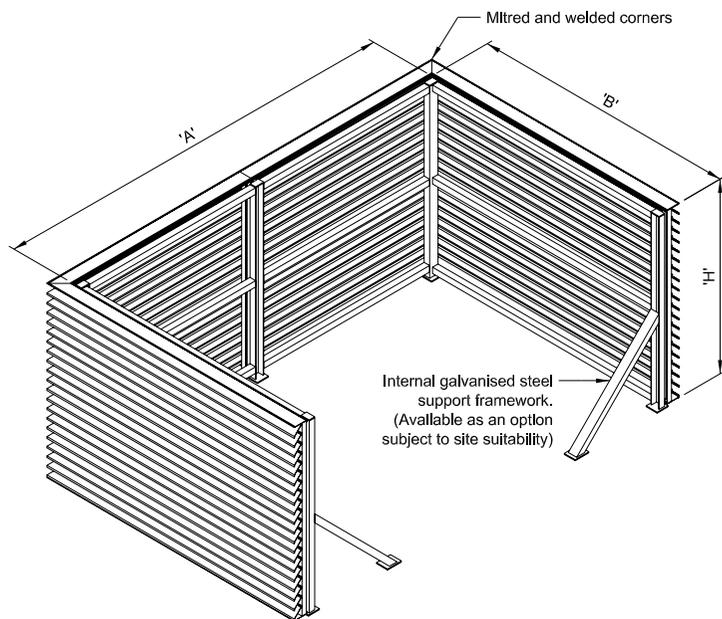
The 100mm pitched blades clip onto the mullions and there are virtually no constraints on the size of the screening required.



**LSD100 Louvre Screen Doors**

The screen louvre system can also be supplied with either single or double leafed doors providing secure access to the screened area. The louvre blades are aligned with the screening itself for aesthetics and can be manufactured in framed and frameless panels.

Optional ironmongery is available to suit designers needs.



## Available Options:

### Steel Work Support

Standard uni-strut steel bracing is available to provide additional support subject to site suitability.

### Big Foot System

Other support systems can be integrated to suit site and designers requirements.

### Steel Base Plates

GDL can manufacture base plates and the vertical support posts to designers and engineers specifications. This option removes the requirement for additional support braces where space is restricted.

## Flashings & Cappings

Head, jamb and cill flashings are available to suit any required profile.

## Invert

The inverted blade system provides complete screening for high level plant areas when viewed from low or ground level.



Prissick Sports Village, Middlesbrough

Brise Soleil



**HS Horizontal System**

Primarily used on the South elevations where the higher sun angles are blocked reducing both glare and solar heat gain.

The Horizontal Solar System provides excellent shading during the summer months which reduces the energy costs to cool the occupied area of the building, whilst maintaining uninterrupted views through the glazing and minimising the effect on light transmission in the winter.



**VS Vertical System**

The Vertical Solar System - provides excellent shading to the East and West elevations of the building catering for the lower sun angles.

The Vertical Solar System provides excellent reduction to solar gain through the glazing and so saving energy required to cool the internal space of the building. A variety of blade types and sizes allow the Architect flexibility to design an aesthetic facade to the building while still offering excellent vision through the glazing.

Profile	Blade (IS)	Dimension (mm)	
		A	B
	<b>ISE150</b>	<b>150</b>	<b>34</b>
	<b>ISE200</b>	<b>200</b>	<b>34</b>
	<b>ISE250</b>	<b>250</b>	<b>40</b>
	<b>ISE300</b>	<b>300</b>	<b>50</b>
	<b>ISE400/442</b>	<b>400/442</b>	<b>68.6</b>
	<b>ISE617</b>	<b>617</b>	<b>68.6</b>
	<b>ISTE200</b>	<b>200</b>	<b>34</b>

Standard single skinned blades are available with sizes from 75mm to 100mm for shorter spans between supports.

## Available Options:

### Elliptical Blades

From extruded aluminium, the elliptical blades are available from 600mm (617mm) deep.

### Timber Blades

Available in various species of timber, from square to rectangular profiles. Elliptical profile is available in Red Cedar species.

### Single Skinned Blades

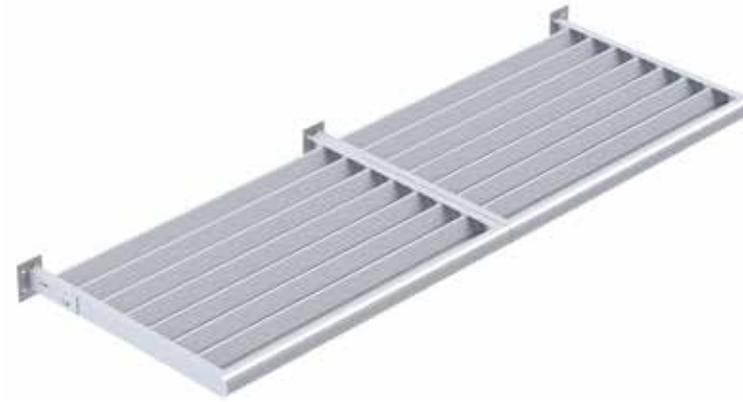
Traditional single skinned profiles are available for smaller light weight applications. These systems can be an integral part of the curtain walling system or stand alone fixed to supporting structures. The blades are available for 75 and 100mm pitch.

### Tie Rods and Support Struts

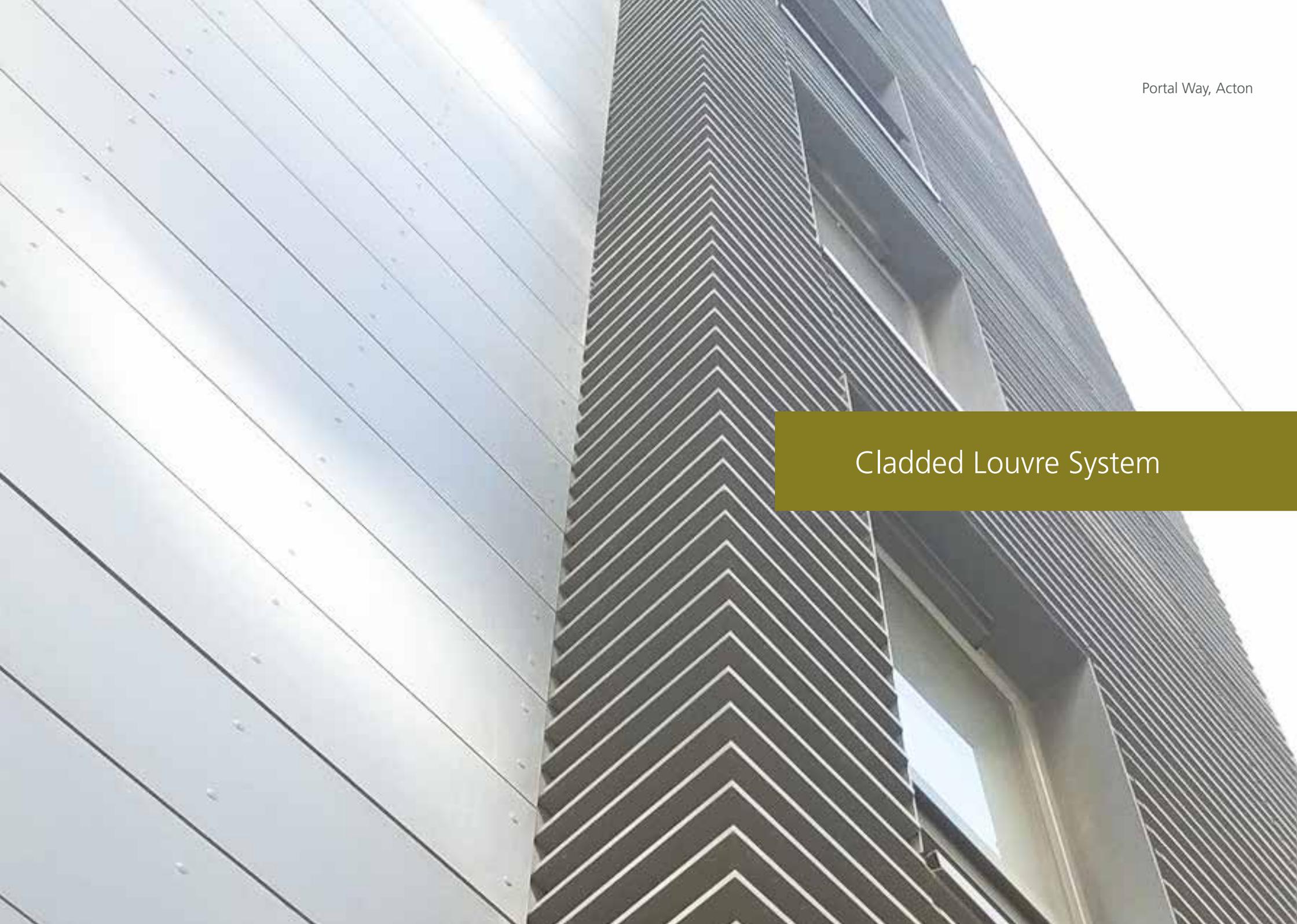
Over sized and high load systems can be supported off additional tie rods or struts to reduce the stress on the primary fixings.

### Brackets

A range of standard and bespoke bracketry is available to affix the Brise Soleil system to the supporting structure. The application, size and weight of the system will determine the required bracketry.



Cladded Louvre System





### HL Horizontal Louvre Effect

The horizontal louvre cladding is profiled to imitate conventional louvre blades and is available from 200 up to 1100mm wide, and to a maximum length of 2500mm per panel. Large areas are accommodated using multiple panels and profiled internal strap at butt joints.

The panels are constructed from a single skin of aluminium up to 3mm thick. The depth of the overall panels can vary to suit various profiles.

Louvred effect cladding panels can also be supplied with active sections where ventilation is required. Slotted perforations give the required free area for ventilation and can be used for both intake and exhaust of air.

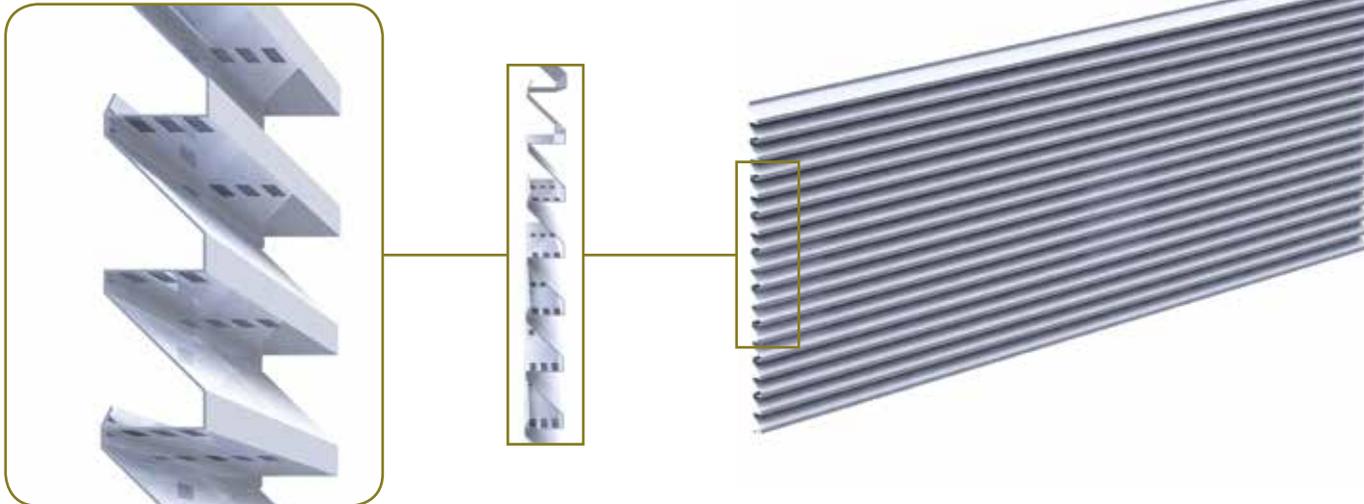


### VC Vertical Cladding

Traditional cladding panels are available from various widths up to maximum lengths of 2500mm and available in bespoke profiles.

Larger cladding requirements are accommodated using profiled internal straps at joints giving the appearance of a continuous run.

Active and free area requirements are accommodated using slotted panels with an internal skin of weather baffle or fine insect mesh.

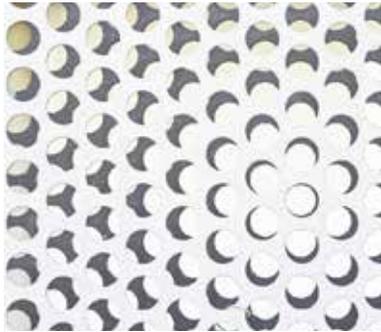


The image shows a close-up of a decorative grille. The grille is made of a light-colored material, possibly metal or plastic, and features a repeating pattern of circular perforations. The holes are arranged in a grid, with each hole slightly offset from the one above and below it, creating a staggered effect. The background behind the grille is dark, which makes the light-colored material stand out. A solid yellow rectangular box is positioned on the right side of the image, containing the text "Decorative Grilles" in white.

Decorative Grilles

**PP Perforated Pattern**  
**DP Decorative Pattern**

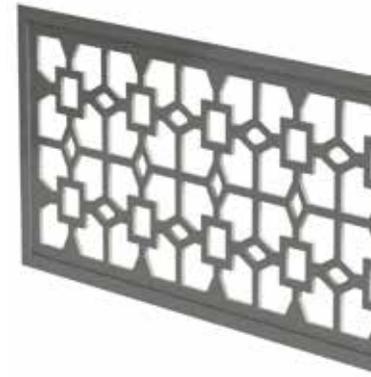
# Decorative Grilles



**PP Perforated Pattern**

Various perforated patterns and hole sizes are available to give the required free area with an attractive yet practical finish. Suitable for wall, duct and ceiling mounting.

The frame is from extruded aluminium section with a perforated sheet core. Sizes are available from 150 x 150 to 1200 x 1200mm. Face mullions are incorporated when length or height exceeds 1050mm.



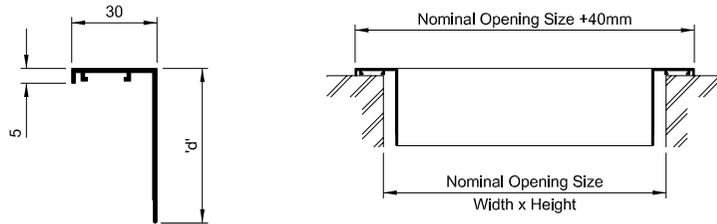
**DP Decorative Pattern**

Decorative patterns are available for aesthetic requirements and best suited for wall mounted applications. Patterns range from 'fancy cross' to 'inner circles' and 'Moroccan' and available in various base metals. Panels are available from 300 x 300 to 1200 x 1200mm incorporating face or concealed rear mullions (depending on pattern) where dimensions exceed 1050mm.

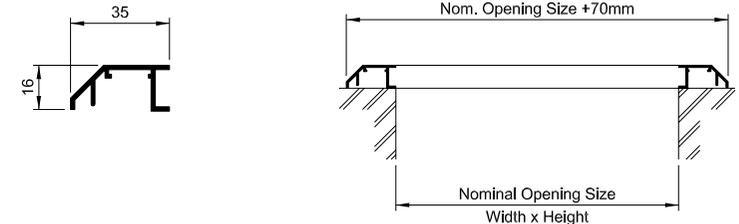
Panels are finished to PPC RAL or BS colours from our standard range.

**Frame Style**

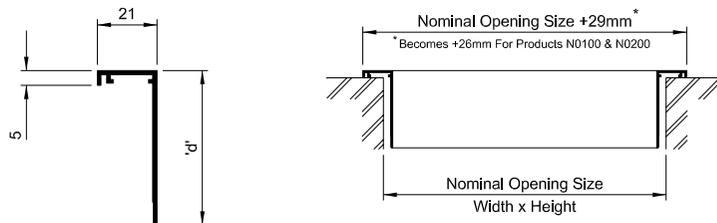
**S** 30mm Flange



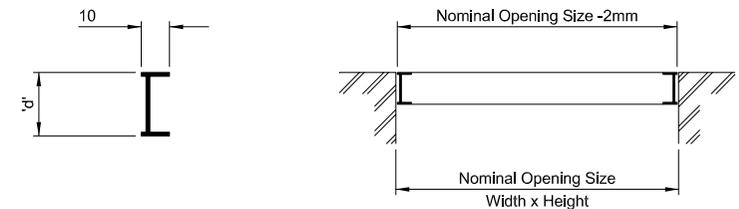
**A** 35mm Surface Mount



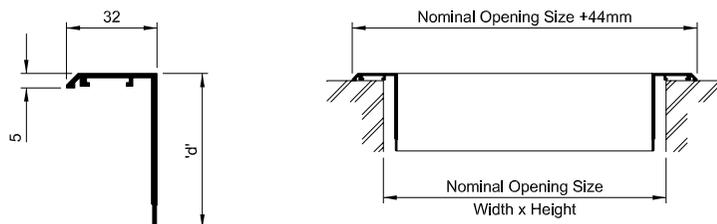
**N** 21mm Flange



**C** Channel Frame



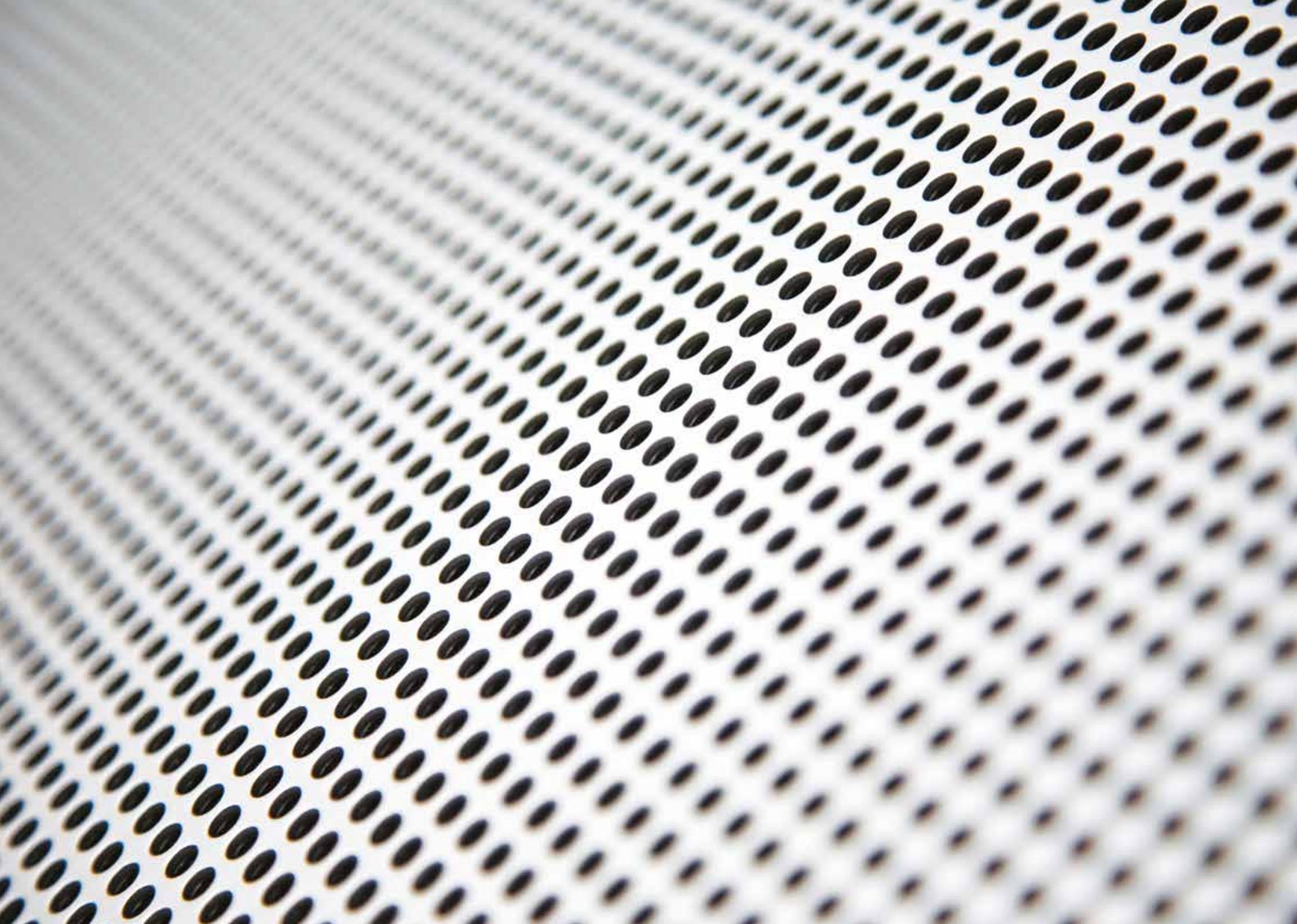
**B** 32mm Bevel Edged Frame



**Available Options:**

A selection of frame styles and various fixing methods are available for the decorative grilles to the requirements of designers.

Optional removable or hinged cores are available including options for gas struts, rear filter housing and dampers. Minimum nominal unit size of 150 x 150mm for interfacing rear components.



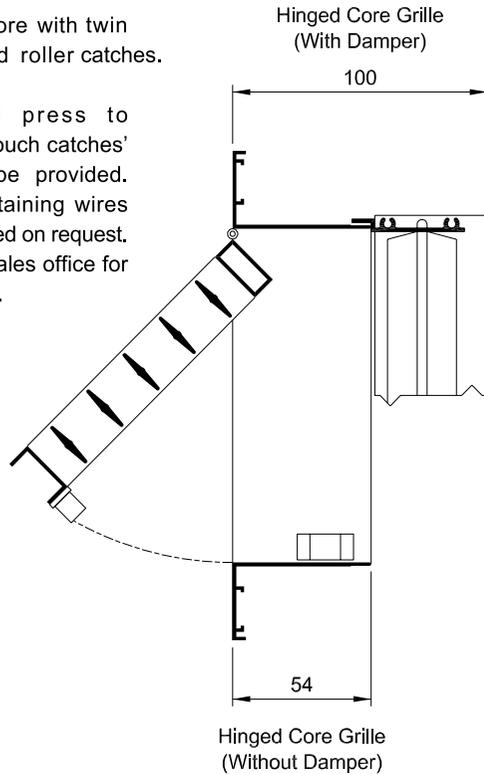
## Core Options:

### Options

#### H Hinged Core

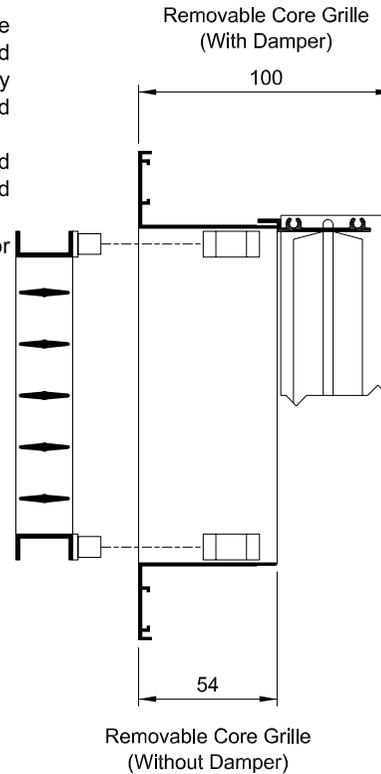
Hinged core with twin concealed roller catches.

Optional press to release 'touch catches' can also be provided. Safety retaining wires can be fitted on request. Contact sales office for size limits.



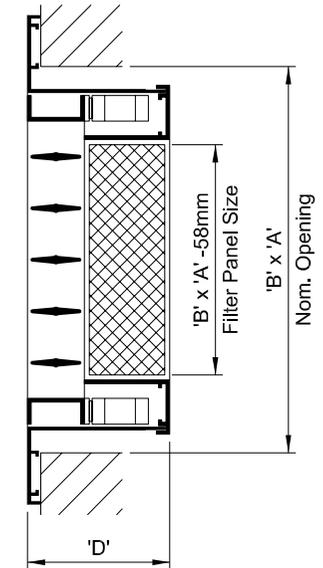
#### R Removable Core

Fully removable core with 4 qty. concealed roller catches. Safety retaining wires are fitted as standard. Not recommended for ceiling mounted applications. Contact sales office for size limits.



#### + Rear Filter Housing

Removable or hinged core products can be factory fitted with rear housing to accept filters. To specify, state product code, '+Rear Filter Housing' and give filter thickness and type. Contact sales office for size limits.



Hinged / Removable Core Grille with Rear Filter Housing.  
Dim. 'D' to suit filter thickness.



## Balustrade Systems

## BSM Metal Balustrade System BSG Glazed Balustrade System



### BSM Metal Balustrade System

GDL manufacture a range of aluminium balustrade systems to standard or bespoke design.

Metal balustrade systems can be manufactured for brickwork openings, walkways and Juliet or standard balconies. High security, permanent and removable fixings can be incorporated onto the systems and manufactured to designers specifications.



### BSG Glazed Balustrade System

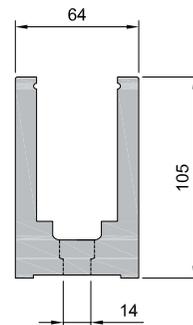
Framed or frameless glass balustrade systems provide stunning aesthetics and simple to install and remove.

The glass systems come in maximum of 3m lengths and suitable for 10 to 25mm glass thickness with either base or side fixings. The stainless steel sections can be grade 304 or 316 depending on designers requirements.

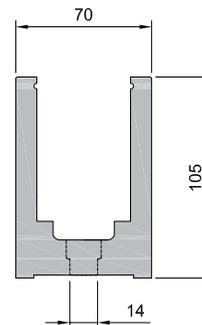
### Frameless Glass System



Locate Secure



For 12 & 15mm glass



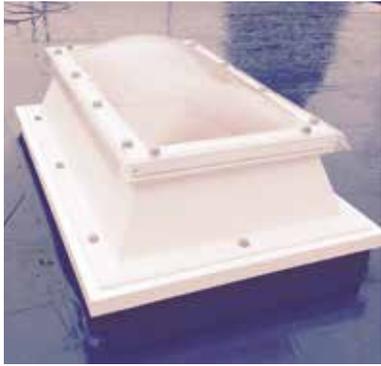
For 17 - 21mm glass





Roof Lights

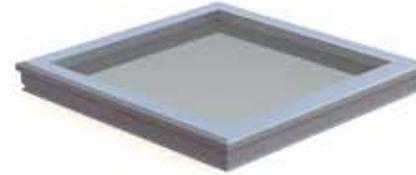
## Polycarbonate Domes Glass Roof Lights



### Polycarbonate Domes

Ideally suited to fit flat roofs, the polycarbonate domes are available in either single, double or triple skin.

There are many different sized domes from 600 x 600 to 1800 x 1800 in standard sizes to accommodating bespoke requirements. The polycarbonate domes are available in square, rectangular, circular or pyramid shapes and with or without the PVC kerb up stand.



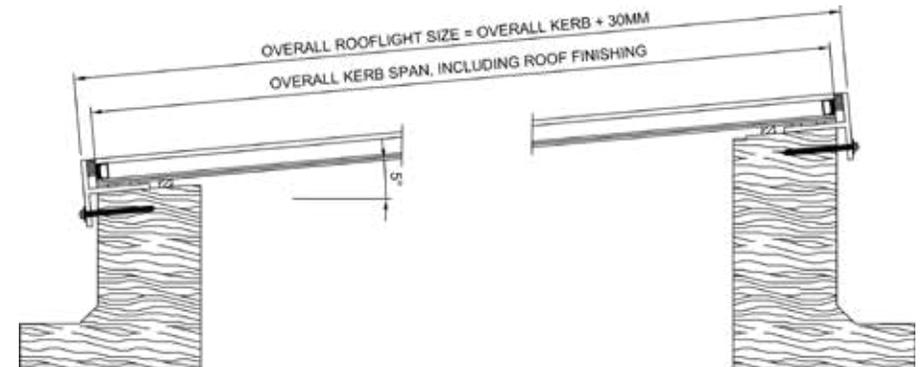
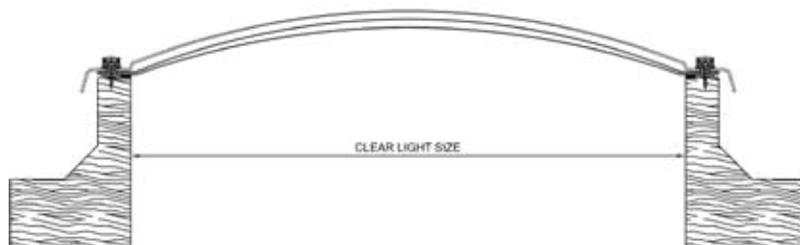
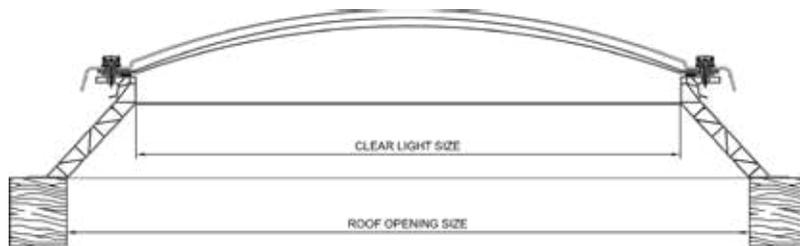
### Glass Roof Lights

Fixed glass and walk on glass systems are available from our roof light ranges.

The fixed glass systems can be supplied with the vertical or splayed PVC kerbs. The walk on system has been designed for areas with pedestrian access and roof terraces.

Fixed glass roof lights can be supplied in a wide range of sizes and configurations. Maximum standard sizes for roof lights using a single glazing panel are:

- 2.2m x 2.2m square
- 1.6m x 3.0m rectangular
- 2.3m diameter circular/elliptical.



## Available Options:

### Kerb / Up stand

**IC3 Kerb** – The 310mm high PVC kerb comes with three main insulated chambers to provide a U – Value of 1.3W/m<sup>2</sup>K.

**TW2 Splayed and Vertical** – Multi chambered and double skinned to give a U – Value of 1.8W/m<sup>2</sup>K. This kerb provides outstanding thermal efficiency and high resistance to weathering. The splayed up stand is 237mm high.

**TBAL Kerb** – Thermally broken aluminium construction providing a U – Value of 2.2W/m<sup>2</sup>K with a standard height of 175mm.

**CGRP** – The GRP up stand is designed for circular openings with a U – Value of 2.2W/m<sup>2</sup>K. The standard upstand height is 175mm.

## Glazing Options:

### Clear

- High light transmission.
- Placement where glare may occur is a consideration.
- Allows full vision of views and objects.
- Light transmission – 89%.

### Bronze

- Reduces solar heat gain.
- Reduces light transmission into the building below.
- Light transmission – 50%.

### Opal

- Maximises privacy.
- Diffused light transmission and so avoids glare and shadows.
- Prevents vision of views and objects.
- Light transmission – 50%.

### Diffused

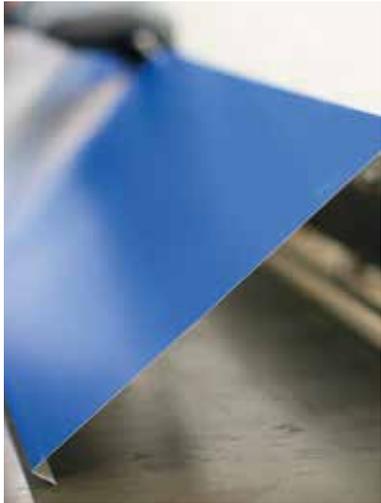
- Maximises privacy.
- High levels of light transmission into a building.
- Diffuses light transmission and so avoids glare and shadows.
- Prevents vision of views and objects.
- Light transmission – 85%.

Bermondsey Spa Luxury Apartments, London





Flashings, Soffits and Fascias

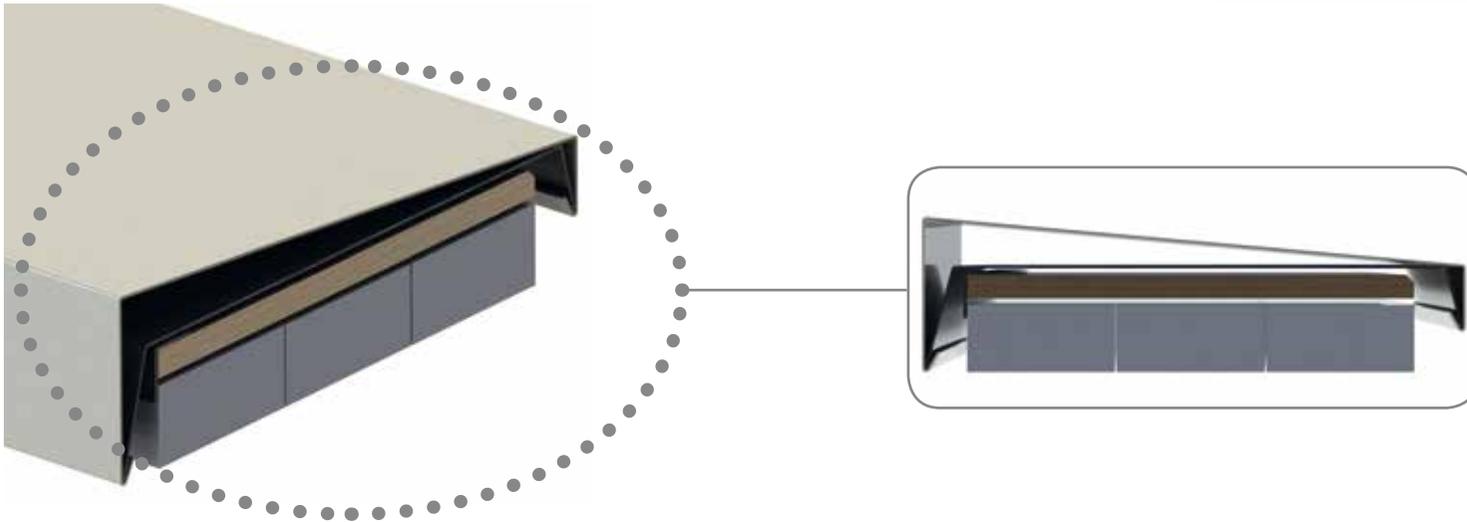
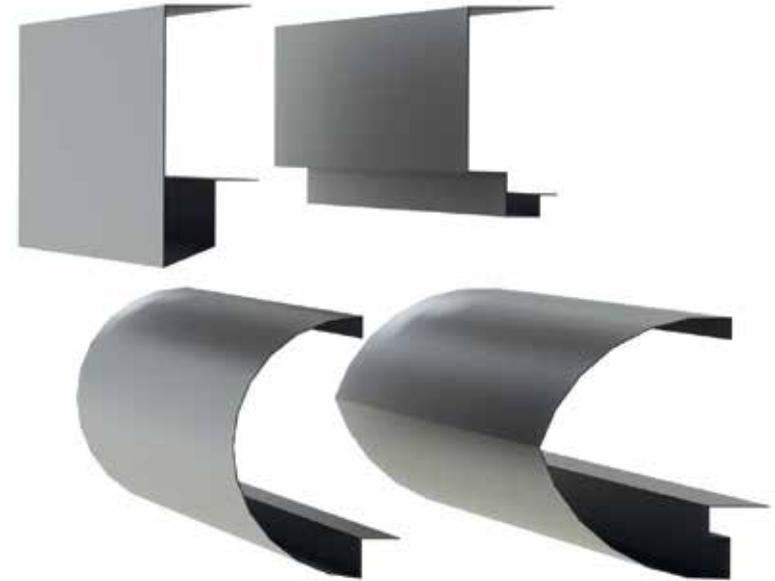


## Flashings, Soffits and Fascias

GDL can supply a range of standard extruded aluminium profiles for trimming and flashing as well as fabricate bespoke requirements to any shape or profile.

GDL manufacture the following range of products to the requirements of designers:

- Bullnose Fascia Cladding.
- Soffit Cladding.
- Aluminium Drip Cills.
- Roof Trims.
- Beam and Column Casings.
- Aluminium Copings and Cappings.





## Installation

GDL Air Systems Ltd offer a full professional on-site installation service for all of our product range.

Full turnkey packages can be offered, from manufacture, deliver and install to annual or six monthly maintenance contracts. Our experienced and highly trained site installation team are trained and experienced in the installation of all of our product range.

### All site operatives are fully trained in the following:

- Working at height.
- Manual handling.
- Use of harnesses.
- First aid.
- IPAF.
- PASMA.
- CSCS.
- Site supervisor SSSTS scheme.

All operations are carried out in accordance with approved site risk assessments and method statements.

### GDL Air Systems Ltd has the following accreditations

- Construction Line.
- ISO 9001 Quality Assurance ISO14001 Environmental Assurance.

GDL Air Systems Ltd is fully insured to carry out the installation of all its product range.







**GDL HEAD OFFICE**

GDL Air Systems Ltd | Air Diffusion Works | Woolley Bridge Road | Hadfield | Glossop | Derbyshire | SK13 1AB  
T. 01457 861 538 | F. 01457 866 010 | E. [info@gdl-architectural.co.uk](mailto:info@gdl-architectural.co.uk)

**[gdl-architectural.co.uk](http://gdl-architectural.co.uk)**

