

A low-angle photograph of a modern building's exterior, featuring a series of white architectural louvers with dark horizontal slats. The building's facade is composed of white panels and dark window frames. An orange graphic element, resembling a stylized arrow or a section of a louver, is overlaid on the left side of the image, containing the text 'Architectural Products'.

# Architectural Products

**HOLYOAKE**  
AIR MANAGEMENT SOLUTIONS | by price

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# Architectural Louvers

**With more than 65 years of experience** designing air management solutions, manufacturing, and working in partnership with architects and designers, Holyoake has a keen understanding of the demands of specifiers. Holyoake's integrated systems are all developed to complement exterior and interior design standards, to enhance the aesthetics of all locations in which they are installed, and to provide efficient and effective air management.

This brochure details the range of Holyoake Architectural Products that are designed to offer effective weather protection with modest pressure drops. The Holyoake Products come in a wide range of blade widths and configurations to suit a variety of architectural and engineering requirements. Horizontal and vertical product types are available, including drainable models, with many optional features.

The Holyoake series of Architectural Products offer our customers security and protection against the most extreme weather conditions. Designed and constructed from solid, extruded aluminium to be a permanent part of the building, these louvers maintain their appearance, adding to the architectural appeal of the building, whilst providing effective weather protection.

Holyoake's Architectural Products are included in the AutoDesk REVIT suite, for full integration with BIM environments.

-  Aluminum Construction
-  Custom Made
-  Computerised Selection
-  Engineering Support
-  Powder Coat
-  Anodised
-  BIM Certified Models
-  Australian and New Zealand Standard Classification

Contact your nearest Holyoake office for expert advice on the design, supply, and installation for any of the Holyoake Weather Louver series.

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# Louver Selection

When selecting an external louver it is important to consider the intended application, the HVAC requirement, and location of the installed product. For example, an open roofed plant screen will typically not have the same weather proofing or HVAC requirement as a louver connected to a building's air conditioning system.

The extensive profile diversity of the Holyoake external weather louver range gives the architect and consultant the opportunity to select the appropriate louver to suit the site requirements. Holyoake has a Louver Calculator application available to enable accurate performance characteristics to be determined. This application clearly identifies the air velocities, effective pressure areas, free areas, and weights of selected louver profiles. This application greatly assists the specifier and designer, providing accurate information to determine the correct louver selection.

The Holyoake range of external louvers have been tested to Australian/New Zealand Standards for both water ingress efficiency and wind load rating. The class and load ratings of each profile are noted on the product pages of this catalogue.

Our specialist personnel and in house engineering department are available to assist with any design or performance enquiries.

## EFFECTIVE PRESSURE AREA/FREE AREA EXPLAINED

There is a common misconception regarding free area when calculating the size and efficiency of louvers. Quite often the free area is given as a static percentage with no consideration given to the variations in louver design that affect this percentage.

To calculate a realistic free area percentage, the active area of the louver (or effective pressure area) is divided by the total area of the louver. As the effective pressure area changes dependant on louver type and size, so will the free area.

The effective pressure area is a calculation that returns the operable area of the louver in square metres. This calculation includes the tolerance of the louver, the spacing of the louver blades, any area losses incurred and is conservative by default.

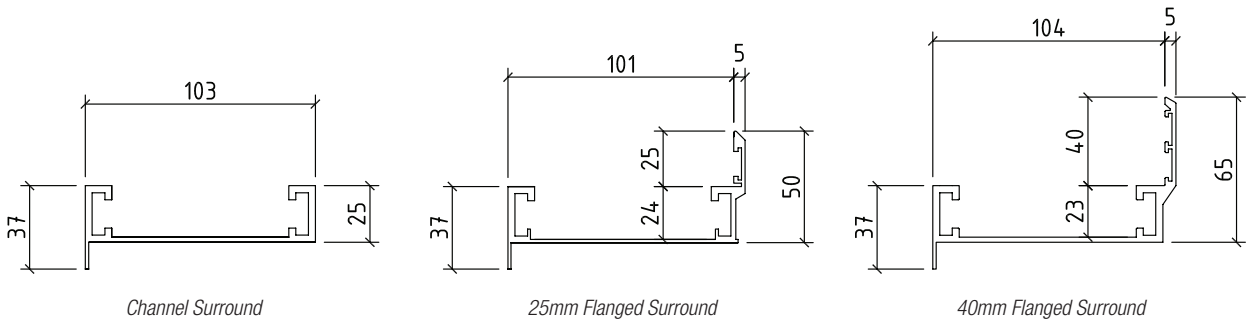
### Performance Note:

When velocities through louvers cannot be controlled, water penetration performance cannot be guaranteed. Water penetration usually does not need to be considered when selecting exhaust louvers.



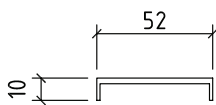
## FRAME STYLES

### CHANNEL/FLANGE FRAME



OHL - 102 | OHL - 124 | OVL - 99 | OHL - 100WT | OHL - D | OHL - DRC\*  
 OHCL - 102 | OHCL - 124 | OHL - PHL

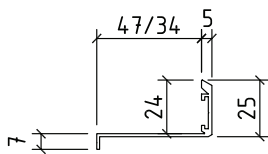
### SMALL PROFILE CHANNEL FRAME



Channel Surround

OHL - 45

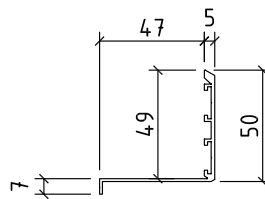
### SMALL PROFILE FLANGE FRAME



25mm Flanged Surround

OHL - 45 | OHL - 34

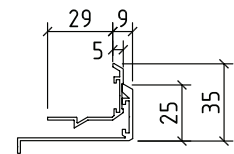
### EXTENDED FLANGE FRAME



50mm Flanged Surround

OHL - 45

### REMOVABLE CORE FLANGE FRAME



Removable Core Flanged Surround

OHL - 45 | OHL - 34

\* OHL-DRC Frame depth = 155mm refer to product details

# OHL | KD Series

## DUAL STOP WEATHER LOUVER

### MODEL OHL-KD100

#### FEATURES

- Attractive Curved Blade Profile
- Obstructed Line of Sight
- Dual Weather Stop Blade
- Available in a knock down kit for assembly on site

#### CONSTRUCTION

The OHL - KD100 louver system is constructed entirely of 6063 T5 extruded aluminium, mechanically locked together ensuring a solid, resilient structure. All louvers are manufactured to the highest fabrication and performance standards.

#### OPTIONS

- Powder Coat finishes (Duratec warranty coatings available on request)
- Natural Anodised finish
- Aluminium or Stainless Steel bird mesh
- Aluminium Blanking



The Holyoake OHL - KD100 louver is an attractive multi-purpose louver which features the capacity for on site assembly. Based on proven Holyoake louver technology, the louver blade features one water stop on its profile and minimises any water carry over by overlapping the blades.

The large profile and 102mm blade spacing of the OHL - KD100 creates a bold line across the louver face which is architecturally pleasing. The slightly curved blade face enhances the architectural appeal of the louver.

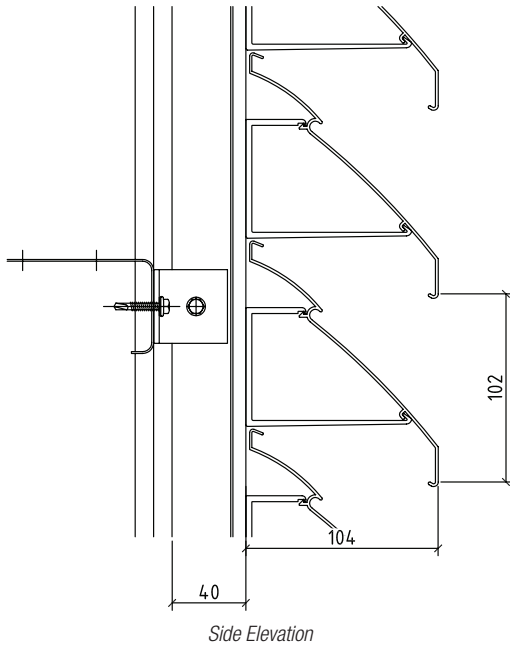
#### TYPICAL APPLICATIONS

The OHL - KD100 is ideally suited for larger applications where the deeper profile depth increases the weather protection performance. The larger profile also improves the visual aspect of the horizontal lines across the system when viewed from a distance.

The OHL - KD100 louver can be installed as a part of the Mechanical Services System for either intake or exhaust applications, or it can be installed purely as a sight screen to hide unsightly plant equipment. In the screening format, the louvers can be installed in the standard configuration, or to completely block the line of sight through the blades the system can be installed inverted.




## DIMENSIONAL DATA



## TESTING STANDARDS

**AS/NZS 4740: 2000 Standard:** Natural ventilators - Classification and performance

**BS EN 13030: 2001 Standard:** Ventilation for buildings - Terminals - Performance testing of louvers subjected to simulated rain

	Pressure Area Velocities	<1.0m/s	1.0 - 3.0m/s
	Water Ingress Efficiency	<b>Class B</b>	<b>Class C</b>
	Wind Load Rating	<b>Level 1</b>	

All louvers have been tested under a simulated exterior wind face velocity of 13m/s (as nominated by AS/NZS 4740:2000) alongside the simulated building intake louver velocities of 0.5m/s to 3.0m/s.

Intake louver velocities equate to the pressure area velocities nominated.

The OHL - KD100 uses the Holyoake "Concealed Mullion" system. This is stick built on site and once installed creates an unbroken line across the louver face in both width and height. Note: Subject to the installation of suitable supporting steelwork.

# OHL | 102 Series

## DUAL STOP WEATHER LOUVER

### MODEL OHL-102

#### FEATURES

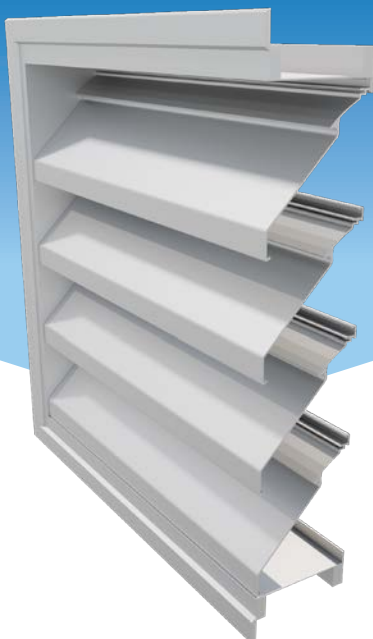
- Moderate Performance Louver
- Attractive Curved Blade Profile
- Obstructed Line of Sight
- Dual Weather Stop Blade

#### CONSTRUCTION

The OHL - 102 louver system is constructed entirely of 6063 T5 extruded aluminium, mechanically locked together ensuring a solid, resilient structure. All louvers are manufactured to the highest fabrication and performance standards.

#### OPTIONS

- The OHL - 102 is available in three surround options:
  - Flangeless Channel Surround
  - 25mm Flange Cover
  - 40mm Flange Cover
- Powder Coat finishes (Duratec warranty coatings available on request)
- Natural Anodised finish
- Aluminium or Stainless Steel bird mesh
- Aluminium Blanking



The Holyoake OHL - 102 louver is an attractive, moderate performance, multi-purpose louver, primarily used in more conventional louver panel applications. Based on proven Holyoake louver technology, the louver blade features one water stop on its profile and minimises any water carry over by overlapping the blades.

The OHL - 102 is available in conventional single panel construction with a maximum blade length of 5.8 meters. For greater lengths an architectural style is available to give a continuous line. Louvers can be prefabricated or pre-cut and supplied in sections for field erection on site.

#### TYPICAL APPLICATIONS

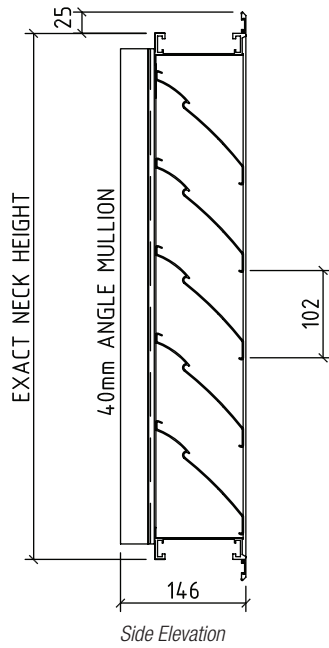
The OHL - 102 is ideally suited for applications where the deeper profile depth increases the weather protection performance. The larger profile also improves the visual aspect of the horizontal lines across the system when viewed from a distance.

The OHL - 102 louver can be installed as part of the Mechanical Services System for either intake or exhaust applications.





## DIMENSIONAL DATA



## TESTING STANDARDS

**AS/NZS 4740: 2000 Standard:** Natural ventilators - Classification and performance

**BS EN 13030: 2001 Standard:** Ventilation for buildings - Terminals - Performance testing of louvers subjected to simulated rain

 Pressure Area Velocities	<b>0 - 3.0m/s</b>
 Water Ingress Efficiency	<b>Class C</b>
 Wind Load Rating	<b>Level 1</b>

All louvers have been tested under a simulated exterior wind face velocity of 13m/s (as nominated by AS/NZS 4740:2000) alongside the simulated building intake louver velocities of 0.5m/s to 3.0m/s.

Intake louver velocities equate to the pressure area velocities nominated.



The large profile and 102mm blade spacing of the OHL - 102 creates a bold line across the louver face which is architecturally pleasing. The slightly curved blade face enhances the architectural appeal of the louver.

# OHL | 124 Series

## PERFORMANCE WEATHER LOUVER

### MODEL OHL-124

#### FEATURES

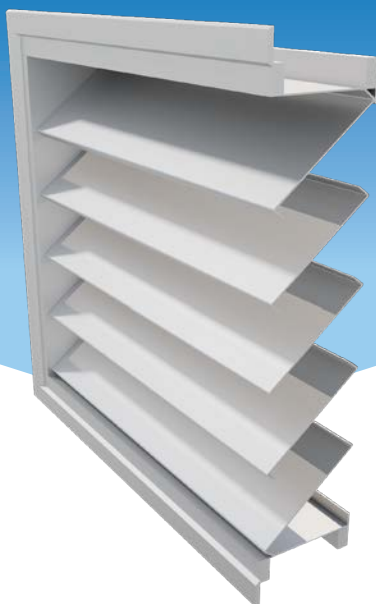
- High Performance Louver
- Straight Profile Blade
- Low Resistance Louver
- Obstructed Line of Sight
- Single Stop Blade

#### CONSTRUCTION

The OHL - 124 louver system is constructed entirely of 6063 T5 extruded aluminium, mechanically locked together ensuring a solid, resilient structure. All louvers are manufactured to the highest fabrication and performance standards.

#### OPTIONS

- The OHL - 124 is available in three surround options:
  - Flangeless Channel Surround
  - 25mm Flange Cover
  - 40mm Flange Cover
- Powder Coat finishes (Duratec warranty coatings available on request)
- Natural Anodised finish
- Aluminium or Stainless Steel bird mesh
- Aluminium Blanking



The Holyoake OHL - 124 louver is an attractive, high performance, multi-purpose louver which features a high "effective pressure area". Based on proven Holyoake louver technology, the flat profile louver blades are set at a low angled pitch.

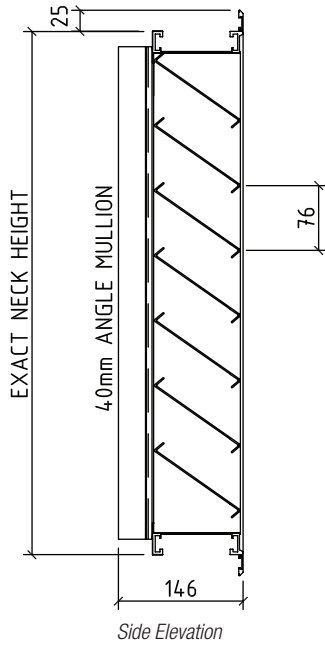
The OHL - 124 is available in conventional single panel construction with a maximum blade length of 5.8 meters. For greater lengths an architectural style is available to give a continuous line. Louvers can be prefabricated or pre-cut and supplied in sections for field erection on site.

#### TYPICAL APPLICATIONS

This product is best suited for applications where maximum airflow is a requirement. The OHL - 124 louver can be installed as part of the Mechanical Services System for either intake or exhaust applications. The larger profile and sharp extrusion lines create a unique, minimalist profile when installed.



## DIMENSIONAL DATA



## TESTING STANDARDS

**AS/NZS 4740: 2000 Standard:** Natural ventilators - Classification and performance

**BS EN 13030: 2001 Standard:** Ventilation for buildings - Terminals - Performance testing of louvers subjected to simulated rain

	Pressure Area Velocities	<1.0m/s	1.0 - 3.0m/s
	Water Ingress Efficiency	<b>Class B</b>	<b>Class C</b>
	Wind Load Rating	<b>Level 1</b>	

All louvers have been tested under a simulated exterior wind face velocity of 13m/s (as nominated by AS/NZS 4740:2000) alongside the simulated building intake louver velocities of 0.5m/s to 3.0m/s.

Intake louver velocities equate to the pressure area velocities nominated.



The blades are spaced at 76mm centres which ensures enhanced aerodynamic performance coupled with high weatherability. The installed blades overlap one another to minimise the possibility of any water carry over.

# OVL | 99 Series

## VERTICAL WEATHER LOUVER

### MODEL OVL-99

#### FEATURES

- Moderate Performance Louver
- Straight "V" Profile Blade
- Vertical Sight Proof Profile
- Obstructed Line of Sight
- Dual Weather Stop Blade

#### CONSTRUCTION

The OVL - 99 louver system is constructed entirely of 6063 T5 extruded aluminium, mechanically locked together ensuring a solid, resilient structure. All louvers are manufactured to the highest fabrication and performance standards.

#### OPTIONS

- The OVL - 99 is available in three surround options:
  - Flangeless Channel Surround
  - 25mm Flange Cover
  - 40mm Flange Cover
- Powder Coat finishes (Duratec warranty coatings available on request)
- Natural Anodised finish
- Aluminium or Stainless Steel bird mesh
- Aluminium Blanking



The Holyoake OVL - 99 system offers a striking vertical louver alternative that can be used in place of the more conventional horizontal configurations. The ability of the system to be fabricated in panel or knockdown formats creates limitless architectural possibilities while also providing an effective and functional louver system.

Based on proven Holyoake louver technology, the louver blade features one water stop on its profile and minimises any water carry over by overlapping the blades.

The OVL - 99 is available in conventional single panel construction with a maximum blade length of 5.8 meters. It can also be manufactured in a knockdown format.

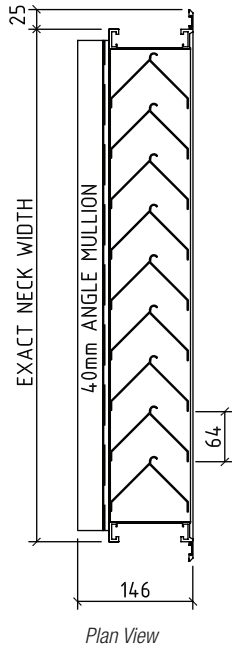
#### TYPICAL APPLICATIONS

The slimline profile of the OVL - 99 is configured in such a way as to completely block the line of sight through the blades. This feature eliminates the possibility of seeing unsightly plant equipment from outside of the building.

The OVL - 99 louver can be installed as part of the Mechanical Services System for either intake or exhaust applications or it can be used as a screen for concealing Plant Equipment. The system also has the flexibility of being able to be installed in a horizontal format, which expands the possible applications for its use.



## DIMENSIONAL DATA



## TESTING STANDARDS

**AS/NZS 4740: 2000 Standard:** Natural ventilators - Classification and performance

**BS EN 13030: 2001 Standard:** Ventilation for buildings - Terminals - Performance testing of louvers subjected to simulated rain

 Pressure Area Velocities Water Ingress Efficiency	<1.0m/s	1.0 - 3.0m/s
	<b>Class B</b>	<b>Class C</b>
 Wind Load Rating	<b>Level 1</b>	

All louvers have been tested under a simulated exterior wind face velocity of 13m/s (as nominated by AS/NZS 4740:2000) alongside the simulated building intake louver velocities of 0.5m/s to 3.0m/s.

Intake louver velocities equate to the pressure area velocities nominated.

The 64mm blade spacing of the OVL - 99 is aesthetically pleasing and creates a finer external appearance than is possible with the use of more conventional louvers. In the vertical orientation, the system also has the ability to follow architectural curves and bends that may exist within the building design.

# OHL | WT Series

## TWO STAGE LOUVER

### MODEL OHL-100WT

#### FEATURES

- Maximum Performance Louver
- Attractive Curved Blade Profile
- Obstructed Line of Sight
- Two Stage Weather Trap Profile

#### CONSTRUCTION

The OHL - 100WT louver system is constructed entirely of 6063 T5 extruded aluminium, mechanically locked together ensuring a solid, resilient structure. All louvers are manufactured to the highest fabrication and performance standards.

#### OPTIONS

- The OHL - 100WT is available in three surround options:
  - Flangeless Channel Surround
  - 25mm Flange Cover
  - 40mm Flange Cover.
- Powder Coat finishes (Duratec warranty coatings available on request)
- Natural Anodised finish
- Aluminium or Stainless Steel bird mesh
- Aluminium Blanking



Note: Rear louver installed vertically



The Holyoake OHL - 100WT louver is a maximum performance “Two Stage” louver system with Class A weatherability performance. This system incorporates the external use of the OHL - 102 louver profile in combination with a vertical second stage louver bank to the rear. The combination of these two profiles ensures that, under all but the most extreme atmospheric conditions, water ingress through the system would effectively be eliminated.

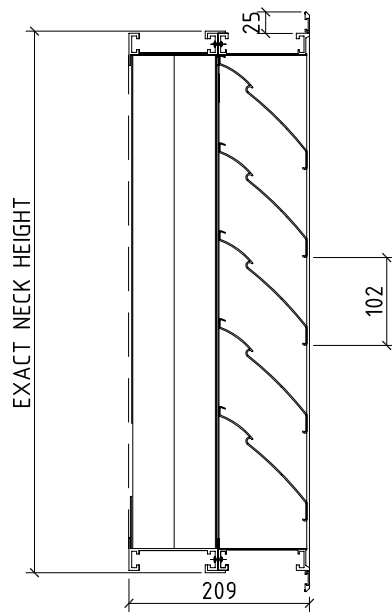
#### TYPICAL APPLICATIONS

This product is well suited for applications where the building is susceptible to extreme weather conditions. The use of the OHL - 102 section on the external face allows for a continuous appearance across the face even when some openings might require the use of a two stage louver.

The OHL - 100WT louver can be installed as part of the Mechanical Services System for either intake or exhaust applications.



## DIMENSIONAL DATA






Side Elevation

Note: Rear Louver Installed Vertically

## TESTING STANDARDS

**AS/NZS 4740: 2000 Standard:** Natural ventilators - Classification and performance

**BS EN 13030: 2001 Standard:** Ventilation for buildings - Terminals - Performance testing of louvers subjected to simulated rain

 Pressure Area Velocities	<b>0 - 3.0m/s</b>
 Water Ingress Efficiency	<b>Class A</b>
 Wind Load Rating	<b>Level 1</b>

All louvers have been tested under a simulated exterior wind face velocity of 13m/s (as nominated by AS/NZS 4740:2000) alongside the simulated building intake louver velocities of 0.5m/s to 3.0m/s.

Intake louver velocities equate to the pressure area velocities nominated.

The large profile and 102mm blade spacing of the OHL - 100WT creates a bold line across the louver face which is architecturally pleasing. The slightly curved blade face enhances the architectural appeal of the louver.

# OHL | 34 Series

## SMALL PROFILE LOUVER

### MODEL OHL-34

#### FEATURES

- High Performance Louver
- Attractive Curved Blade Profile
- Obstructed Line of Sight
- Weather Stop Blade

#### CONSTRUCTION

The OHL - 34 louver system is constructed entirely of 6063 T5 extruded aluminium, mechanically locked together ensuring a solid, resilient structure. All louvers are manufactured to the highest fabrication and performance standards.

#### OPTIONS

- The OHL - 34 is available in two surround options:
  - 25mm Flange Cover
  - Removable Core Flange
- Powder Coat finishes (Duratec warranty coatings available on request)
- Natural Anodised finish
- Aluminium or Stainless Steel bird mesh
- Aluminium Blanking



The Holyoake OHL - 34 is a slimline louver designed primarily to suit smaller applications where the depth and pitch of the larger profile may not be practical. Based on proven Holyoake louver technology, the louver blade features a single stop on its front face.



The OHL - 34 louver is designed to be fabricated as a panel louver only, with a maximum blade span of 5.8 meters.



#### TYPICAL APPLICATIONS



The OHL - 34 is ideally suited for situations that require louvers that are lower in height such as are regularly seen in the kitchen and toilet exhaust systems of large scale apartment buildings. As a general rule the OHL - 34 would not

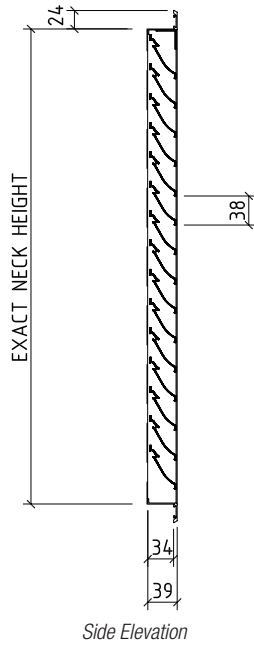


be used in large panel or screen applications.





## DIMENSIONAL DATA



## TESTING STANDARDS

**AS/NZS 4740: 2000 Standard:** Natural ventilators - Classification and performance

**BS EN 13030: 2001 Standard:** Ventilation for buildings - Terminals - Performance testing of louvers subjected to simulated rain

 Pressure Area Velocities	<b>0 - 3.0m/s</b>
 Water Ingress Efficiency	<b>Class B</b>
 Wind Load Rating	<b>Level 1</b>

All louvers have been tested under a simulated exterior wind face velocity of 13m/s (as nominated by AS/NZS 4740:2000) alongside the simulated building intake louver velocities of 0.5m/s to 3.0m/s.

Intake louver velocities equate to the pressure area velocities nominated.

The slim profile and 38mm blade spacing of the OHL - 34 creates a fine appearance across the louver face. The slightly curved blade enhances the architectural appeal of the louver.

# OHL | 45 Series

## SMALL PROFILE LOUVER

### MODEL OHL-45

#### FEATURES

- Moderate Performance Louver
- Attractive Curved Blade Profile
- Obstructed Line of Sight
- Dual Weather Stop Blade

#### CONSTRUCTION

The OHL - 45 louver system is constructed entirely of 6063 T5 extruded aluminium, mechanically locked together ensuring a solid, resilient structure. All louvers are manufactured to the highest fabrication and performance standards.

#### OPTIONS

- The OHL - 45 is available in four surround options:
  - Flangeless Channel Surround
  - 25mm Flange Cover
  - 50mm Flange Cover
  - Removable Core Flange
- Powder Coat finishes (Duratec warranty coatings available on request)
- Natural Anodised finish
- Aluminium or Stainless Steel bird mesh
- Aluminium Blanking



The Holyoake OHL - 45 is a slimline louver designed primarily to suit smaller applications where the depth and pitch of the larger profile may not be practical. Based on proven Holyoake louver technology, the louver blade features two water stops on its front face.

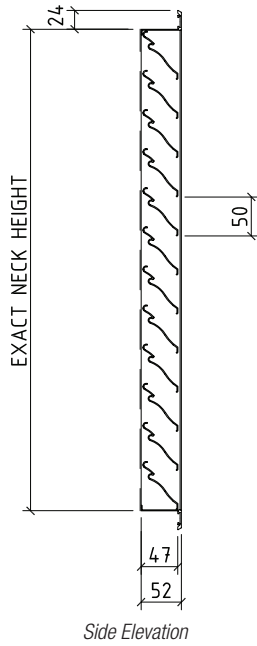
The OHL - 45 louver is designed to be fabricated as a panel louver only, with a maximum blade span of 5.8 meters. The OHL - 45 uses the the Holyoake "Concealed Mullion" clip system as an intermediate support, so that each finished panel will have a continuous appearance across its face.

#### TYPICAL APPLICATIONS

The OHL - 45 is ideally suited for situations that require louvers that are lower in height such as are regularly seen in the kitchen and toilet exhaust systems of large scale apartment buildings. As a general rule the OHL - 45 would not be used in large panel or screen applications.



## DIMENSIONAL DATA



## TESTING STANDARDS

**AS/NZS 4740: 2000 Standard:** Natural ventilators - Classification and performance

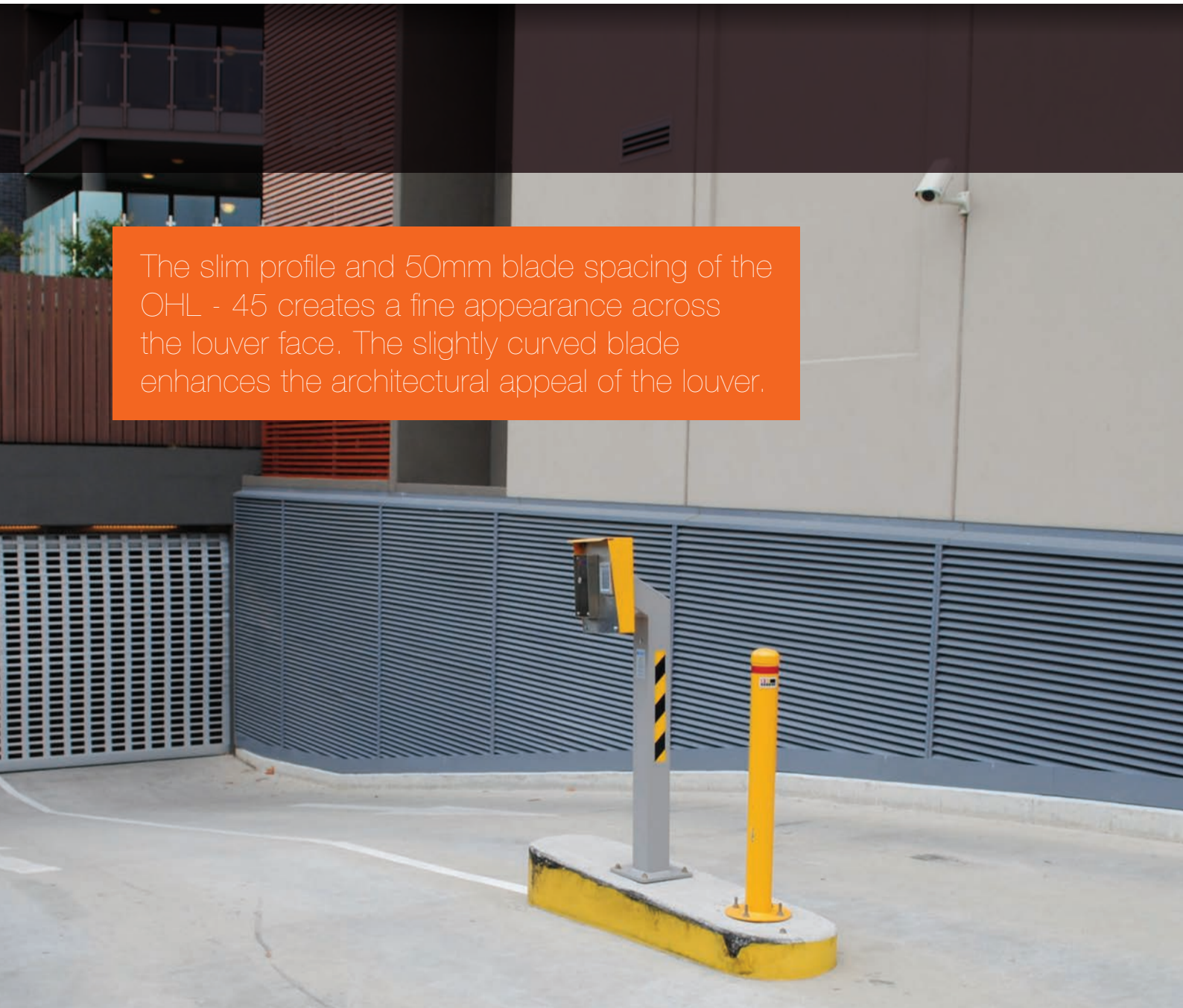
**BS EN 13030: 2001 Standard:** Ventilation for buildings - Terminals - Performance testing of louvers subjected to simulated rain

 Pressure Area Velocities	<b>0 - 3.0m/s</b>
 Water Ingress Efficiency	<b>Class C</b>
 Wind Load Rating	<b>Level 1</b>

All louvers have been tested under a simulated exterior wind face velocity of 13m/s (as nominated by AS/NZS 4740:2000) alongside the simulated building intake louver velocities of 0.5m/s to 3.0m/s.

Intake louver velocities equate to the pressure area velocities nominated.

The slim profile and 50mm blade spacing of the OHL - 45 creates a fine appearance across the louver face. The slightly curved blade enhances the architectural appeal of the louver.



# OHL | D Series

## DRAINABLE WEATHER LOUVER

### MODEL OHL-D

#### FEATURES

- High Performance Louver
- Drainable Louver Blade
- Obstructed Line of Sight
- Vertical Down Pipe Drains

#### CONSTRUCTION

The OHL - D louver system is constructed entirely of 6063 T5 extruded aluminium, mechanically locked together ensuring a solid, resilient structure. All louvers are manufactured to the highest fabrication and performance standards.

#### OPTIONS

- The OHL - D is available in three surround options:
  - Flangeless Channel Surround
  - 25mm Flange Cover
  - 40mm Flange Cover
- Powder Coat finishes (Duratec warranty coatings available on request)
- Natural Anodised finish
- Aluminium or Stainless Steel bird mesh
- Aluminium Blanking



AL

Holyoake Model OHL - D offers an alternative concept in horizontal outside louvers. The drainable blade louver delivers high performance in extreme applications.

CS

The OHL - D louver achieves this by draining the water from each blade and discharging it at the bottom of the louver through vertical cavities found on both sides of the louver panel.

PC

In a typical horizontal louver, where water cascades down the face, the water builds to a level where the pressure differential and the velocity of air over the louver is enough to carry over the water to the inside of the louver.

AN

AS

R

#### TYPICAL APPLICATIONS

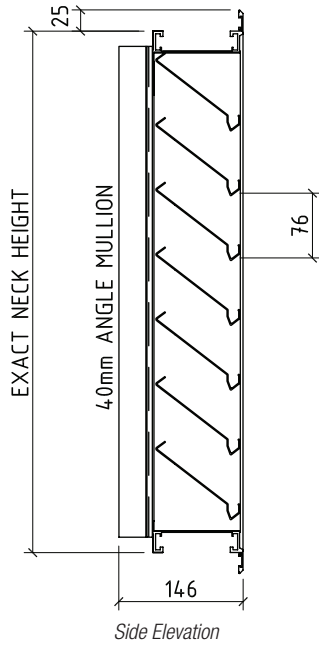
AS

If water penetration performance is of paramount concern the OHL - D offers the most effective way to achieve this in a single stage louver.

The drainable horizontal louver offers excellent water penetration prevention at any given performance level. This means that there is the option of selecting an OHL - D louver at a higher effective velocity without compromising the water penetration performance. If a selection is made at a higher velocity the louver can then be smaller than a typical horizontal louver, giving a direct saving on the louver size and also providing a smaller penetration for the building.



## DIMENSIONAL DATA



## TESTING STANDARDS

**AS/NZS 4740: 2000 Standard:** Natural ventilators - Classification and performance

**BS EN 13030: 2001 Standard:** Ventilation for buildings - Terminals - Performance testing of louvers subjected to simulated rain

	Pressure Area Velocities	<1.0m/s	1.0 - 3.0m/s
	Water Ingress Efficiency	<b>Class B</b>	<b>Class C</b>
	Wind Load Rating	<b>Level 1</b>	

All louvers have been tested under a simulated exterior wind face velocity of 13m/s (as nominated by AS/NZS 4740:2000) alongside the simulated building intake louver velocities of 0.5m/s to 3.0m/s.

Intake louver velocities equate to the pressure area velocities nominated.



As a result of a built-in gutter on each blade, the water does not cascade down the face of the louver. This means that each blade only deals with the water that lands directly on it.

# OHL | DRC Series

## DRAINABLE CLOSABLE LOUVER

### MODEL OHL-DRC

#### FEATURES

- Maximum Performance Louver
- Motorised or Manual Operation
- Closable for Complete Air Inlet Control
- Vertical Down Pipe Drains

#### CONSTRUCTION

The OHL - DRC louver system is constructed of stainless steel and 6063 T5 extruded aluminium, mechanically locked together ensuring a solid resilient structure. All louvers are manufactured to the highest fabrication and performance standards.

#### OPTIONS

- Powder Coat finishes (Duratec warranty coatings available on request)
- Extruded Aluminium Amplimesh
- A range of suitable actuators to optimise control
- 25mm Flange Cover available



AL

G

CS

PC

PC

R

AS

The Holyoake OHL - DRC is a precisely made closable, drainable, weather louver. It is constructed from extruded aluminium in a channel or flanged frame, with special interlocking closable blades gang operated by either manual or motorised means.

In addition to the special drainable closable blades and water penetration cavities the OHL - DRC also offers the unique combination of a closable louver, operated by a manual handle or via a suitable actuator. This provides the facility to fully or partially close the louver automatically when linked to a moisture or rain sensor, or other building management system. In a typical horizontal louver, where water cascades down the face, the water builds to a level where the pressure differential and the velocity of air over the louver is enough to carry over the water to the inside of the louver.

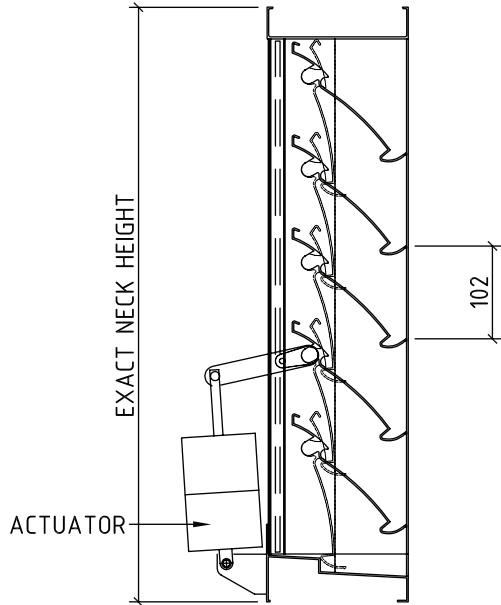
By avoiding this effect the OHL - DRC (Closable Drainable) louver offers excellent performance, so there is much less water intrusion at a given level. This means that a higher effective velocity can be used without compromising the water penetration performance. While open, they offer minimum airflow resistance with low droplet penetration under normal weather conditions.

#### TYPICAL APPLICATIONS

Typical uses are to provide controlled air movement in Gymnasiums and Sports Halls, with heavy duty Aluminium Amplimesh fitted to the rear providing protection to the rear of the louver.



## DIMENSIONAL DATA





Side Elevation (open)

Note: Dashed louver shows blade in closed position

## TESTING STANDARDS

**AS/NZS 4740: 2000 Standard:** Natural ventilators - Classification and performance

**BS EN 13030: 2001 Standard:** Ventilation for buildings - Terminals - Performance testing of louvers subjected to simulated rain

 Pressure Area Velocities	<b>0 - 3.0m/s</b>
 Water Ingress Efficiency	<b>Class B</b>
 Wind Load Rating	<b>Level 1</b>

All louvers have been tested under a simulated exterior wind face velocity of 13m/s (as nominated by AS/NZS 4740:2000) alongside the simulated building intake louver velocities of 0.5m/s to 3.0m/s.

Intake louver velocities equate to the pressure area velocities nominated.



The blades feature a special gutter so each blade only deals with the water that lands directly on it. Therefore, water does not stream down the front of the louver but is directed by means of an internal drain to the external base of the louver. The side cavities are sealed to prevent moisture penetration.

# OHCL | 102 Series

## CLOSABLE WEATHER LOUVER

### MODEL OHCL-102

#### FEATURES

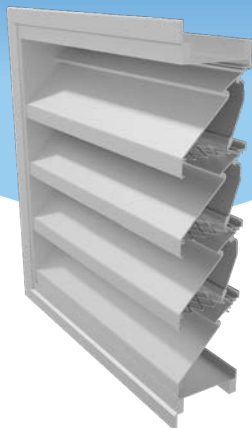
- Moderate Performance Louver
- Motorised or Manual Operation
- Attractive Curved Blade Profile
- Obstructed Line of Sight
- Dual Weather Stop Blade

#### CONSTRUCTION

The OHCL - 102 louver system is constructed entirely of 6063 T5 extruded aluminium, mechanically locked together ensuring a solid, resilient structure. The internal movable blades have a black anodised finish and are complete with an integral hinge and an edge seal of extruded vinyl. All louvers are manufactured to the highest fabrication and performance standards.

#### OPTIONS

- The OHCL - 102 is available in three surround options:
  - Flangeless Channel Surround
  - 25mm Flange Cover
  - 40mm Flange Cover
- Powder Coat finishes (Duratec warranty coatings available on request)
- Natural Anodised finish
- Aluminium or Stainless Steel bird mesh.
- Aluminium Blanking
- Actuators can be mounted top or bottom, specify when ordering



The OHCL - 102 louver is available in a closable option. It offers performance and appearance similar to the basic model with the facility to close the louver by means of concealed black anodised damper blades, pivoted on the underside of each fixed blade and gang operated by either manual or motorised means. While open, it offers minimum air flow resistance with low droplet penetration under normal weather conditions.

#### TYPICAL APPLICATIONS

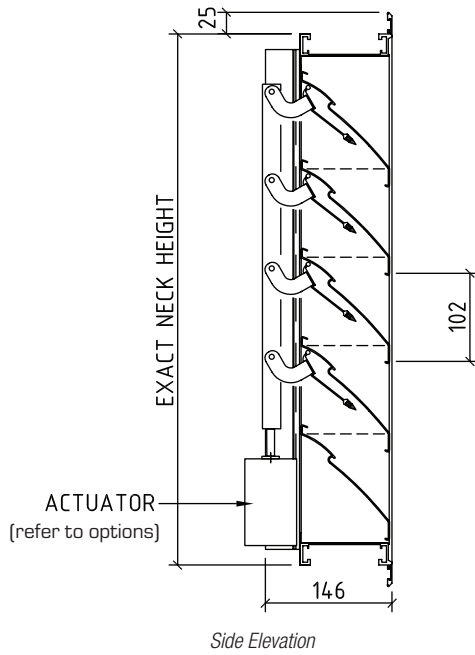
Typical uses are to provide controlled air movement in conjunction with powered and natural ventilation schemes in factories, plant rooms, power stations, and similar projects.

Other suitable applications include controllable air inlets operating with smoke clearance systems, where louvers would normally remain closed but would open in the event of an emergency. Bird screen material slides horizontally into tracks between blades so that linkages are not obstructed.





## DIMENSIONAL DATA



## TESTING STANDARDS

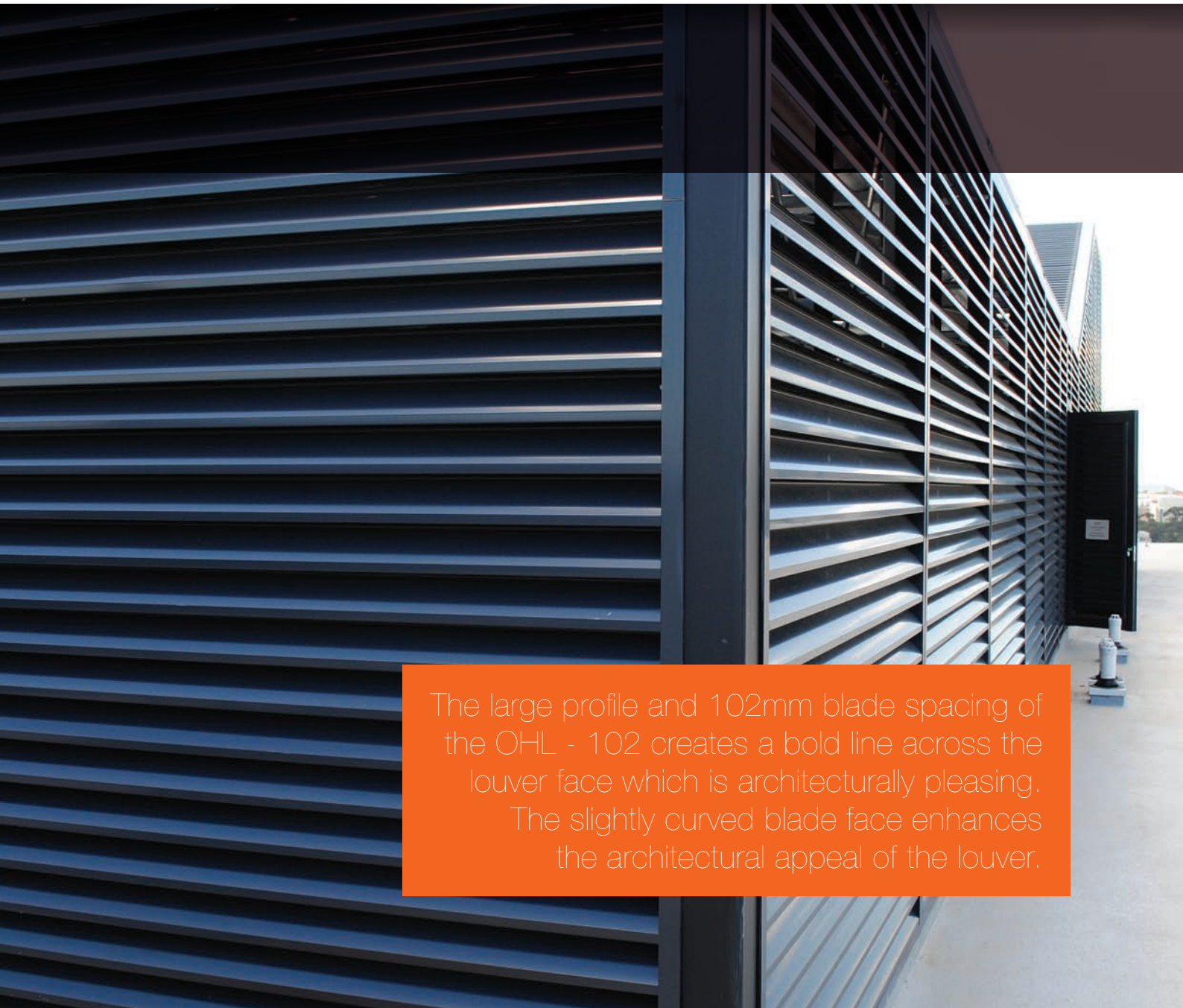
**AS/NZS 4740: 2000 Standard:** Natural ventilators - Classification and performance

**BS EN 13030: 2001 Standard:** Ventilation for buildings - Terminals - Performance testing of louvers subjected to simulated rain

 Pressure Area Velocities	<b>0 - 3.0m/s</b>
 Water Ingress Efficiency	<b>Class C</b>
 Wind Load Rating	<b>Level 1</b>

All louvers have been tested under a simulated exterior wind face velocity of 13m/s (as nominated by AS/NZS 4740:2000) alongside the simulated building intake louver velocities of 0.5m/s to 3.0m/s.

Intake louver velocities equate to the pressure area velocities nominated.



The large profile and 102mm blade spacing of the OHL - 102 creates a bold line across the louver face which is architecturally pleasing. The slightly curved blade face enhances the architectural appeal of the louver.

# OHCL | 124 Series

## CLOSABLE WEATHER LOUVER

### MODEL OHCL-124

#### FEATURES

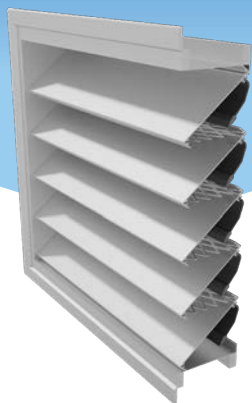
- High Performance Louver
- Motorised or Manual Operation
- Straight Blade Profile
- Obstructed Line of Sight
- Low Resistance Louver

#### CONSTRUCTION

The OHL - 124 louver system is constructed entirely of 6063 T5 extruded aluminium, mechanically locked together ensuring a solid, resilient structure. The internal movable blades have a black anodised finish and are complete with an internal hinge and an edge seal of extruded vinyl. All louvers are manufactured to the highest fabrication and performance standards.

#### OPTIONS

- The OHCL - 124 is available in three surround options:
  - Flangeless Channel Surround
  - 25mm Flange Cover
  - 40mm Flange Cover
- Powder Coat finishes (Duratec warranty coatings available on request)
- Natural Anodised finish
- Aluminium or Stainless Steel bird mesh
- Aluminium Blanking
- Actuators can be mounted top or bottom, specify when ordering



The OHCL - 124 louver is available in a closable option. It offers performance and appearance similar to the basic model with the facility to close the louver by means of concealed black anodised damper blades, pivoted on the underside of each fixed blade and gang operated by either manual or motorised means. While open, it offers minimum air flow resistance with low droplet penetration under normal weather conditions.

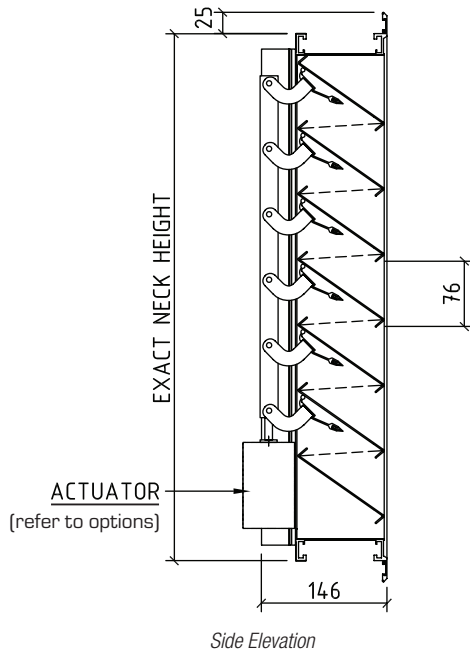
#### TYPICAL APPLICATIONS

Typical uses are to provide controlled air movement in conjunction with powered and natural ventilation systems in factories, plant rooms, power stations, and similar projects.

Other suitable applications include controllable air inlets operating with smoke clearance systems, where louvers would normally remain closed but would open in the event of an emergency. Bird screen material slides horizontally into tracks between blades so that linkages are not obstructed.



## DIMENSIONAL DATA



## TESTING STANDARDS

**AS/NZS 4740: 2000 Standard:** Natural ventilators - Classification and performance

**BS EN 13030: 2001 Standard:** Ventilation for buildings - Terminals - Performance testing of louvers subjected to simulated rain

	Pressure Area Velocities	<1.0m/s	1.0 - 3.0m/s
	Water Ingress Efficiency	<b>Class B</b>	<b>Class C</b>
	Wind Load Rating	<b>Level 1</b>	

All louvers have been tested under a simulated exterior wind face velocity of 13m/s (as nominated by AS/NZS 4740:2000) alongside the simulated building intake louver velocities of 0.5m/s to 3.0m/s.

Intake louver velocities equate to the pressure area velocities nominated.



The blades are spaced at 76mm centres which ensures enhanced aerodynamic performance coupled with high weatherability. The installed blades overlap one another to minimise the possibility of any water carry over.

# AHL Series

## ACOUSTIC LOUVER

### MODEL AHL-150

#### FEATURES

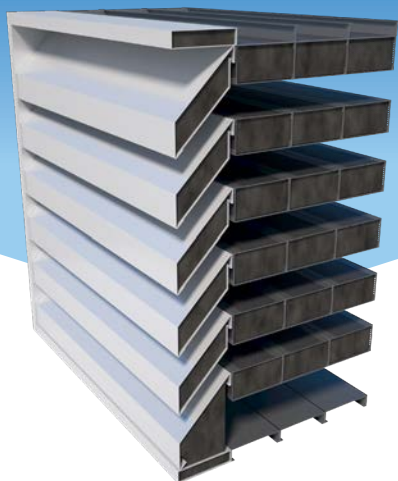
- High Attenuation Performance
- Add-on Acoustic Traps for Increased Performance
- Flat Blade Profile
- Obstructed Line of Sight
- Flangeless Channel Surround

#### CONSTRUCTION

The AHL-150 louver system is constructed entirely of 6063 T5 extruded aluminium. The acoustic insulation is manufactured from 100% polyester. Rear acoustic traps are supplied in black anodised as standard. All louvers are manufactured to the highest fabrication and performance standards.

#### OPTIONS

- Powder Coat finishes (Duratec warranty coatings available on request)
- Natural Anodised finish
- Aluminium or Stainless Steel bird mesh
- Add-on Acoustic Traps
- 25mm Flange Cover available



\*AHL shown with optional rear acoustic traps



The Holyoake AHL-150 louver offers an attractive louver system that provides ventilation and sound attenuation. Based on proven Holyoake louver technology, the louver has been designed to efficiently allow air to pass through the facade of a building while reducing radiated noise.

The acoustic insulation has been engineered to maximise sound absorption whilst minimising moisture absorption. Even when exposed to an atmosphere of 50°C at 90% relative humidity for four days it showed a moisture absorption by weight of less than 0.03%.

The AHL-150 is able to be ordered with acoustic traps that are fixed to the rear of the louver for additional, improved attenuation performance.

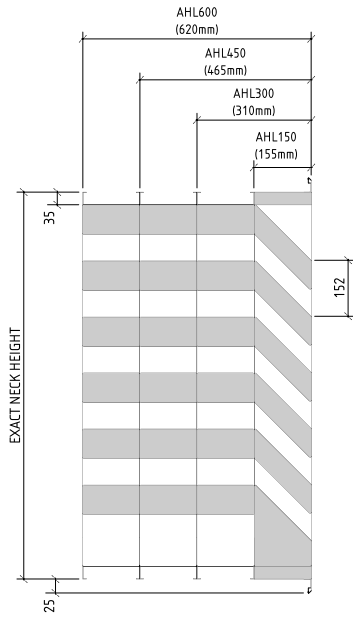
Maximum, recommended velocity of 2.5m/s through the louver.

#### TYPICAL APPLICATIONS

High performance acoustic louvers have proven to be a very effective sound barrier in high density locations. They are suitable for applications where noise can be disruptive or irritating to patrons, businesses, and families. Utilising the AHL-150 can assist in creating spaces, such as dining and recreational areas, which would typically be unusable due to the high noise level.



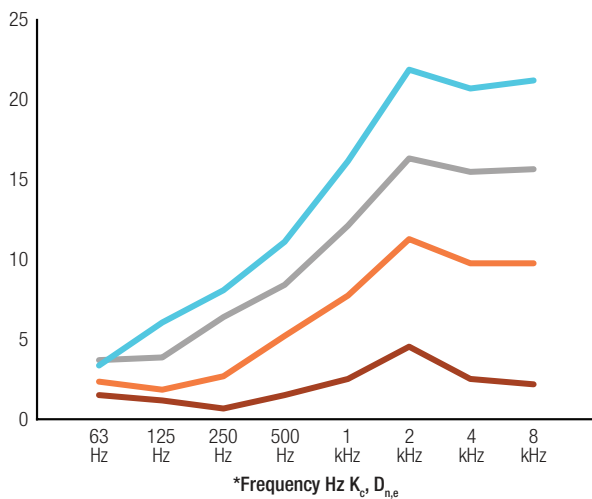
## DIMENSIONAL DATA



## ACOUSTIC DATA

Test specimen name	STC
<b>AHL150</b>	15
<b>AHL300</b> (AHL150 + 1 acoustic trap)	21
<b>AHL450</b> (AHL150 + 2 acoustic traps)	22
<b>AHL600</b> (AHL150 + 3 acoustic traps)	24

## INSERTION LOSS<sub>STATIC</sub> (dB)



- AHL150
- AHL150 + 1 acoustic trap
- AHL150 + 2 acoustic traps
- AHL150 + 3 acoustic traps

\*The single octave data has been calculated from measured third octave data.

\*The Insertion Loss [ $L_{static}$ ] has been measured from data using the ISO 15186-1 method.

\*8kHz data extrapolated from 6.3kHz data.

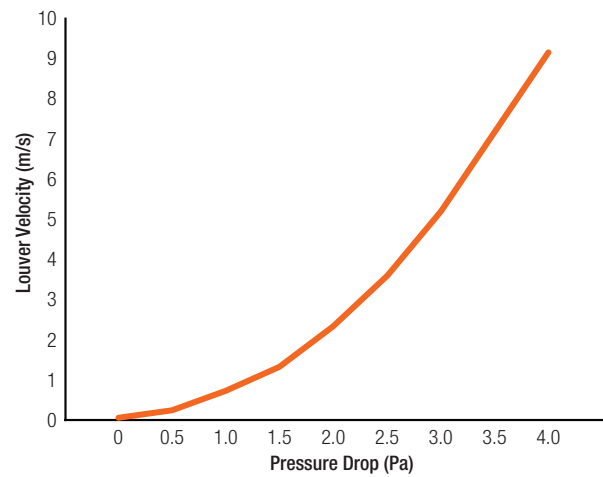
\*Testing undertaken by Canterbury Acoustic Testing Services Ltd with independent peer review being completed by Price Research Center North (PRCN).

## TESTING STANDARDS

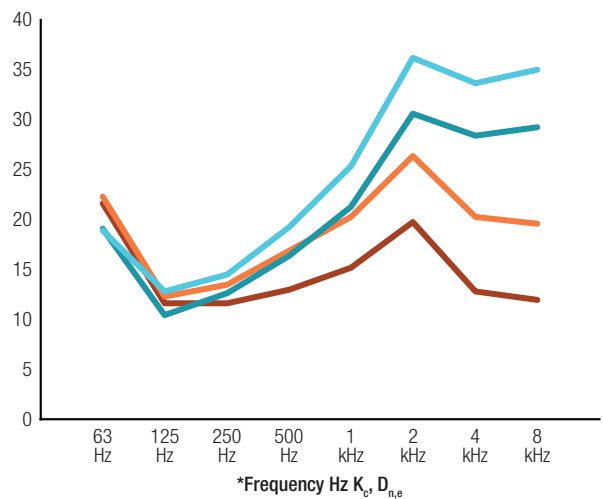
The insulation has been tested and is compliant with:  
 ISO 9705 receiving a Group 1-S Classification with a Smoke Production Rate of less than 5m<sup>2</sup>/s as required by the NZBC C/VM2; and,  
 AS 1530.3:

Ignitability Index	<b>0</b>
Heat Evolved Index	<b>0</b>
Spread of Flame Index	<b>0</b>
Smoke Developed Index	<b>2</b>

## PERFORMANCE DATA



## TRANSMISSION LOSS (dB)



# OHL | DR Series

## LOUVERED DOORS

### MODEL OHL-DR

#### FEATURES

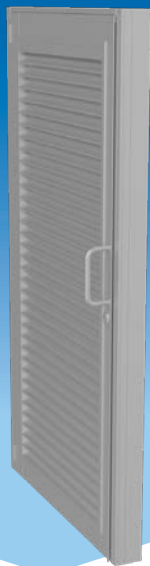
- Range of Performance Louvers
- Range of Blade Profiles
- Single or Double Doors
- Obstructed Line of Sight
- Standard or Selected Hardware

#### CONSTRUCTION

Holyoake Louvered Door Systems are constructed entirely of 6063 T5 extruded aluminium, mechanically locked together ensuring a solid resilient structure. All louvers are manufactured to the highest fabrication and performance standards.

#### OPTIONS

- Powder Coat finishes (Duratec warranty coatings available on request)
- Natural Anodised finish
- Aluminium or Stainless Steel bird mesh
- Aluminium Blanking



The Holyoake Louver Door System has been designed to incorporate all of the features that you could think of in an architectural door and still be compatible with our entire range of outside louvers.



All on site fixings are designed to be concealed using the supplied cover bend once the door has been installed. The doors are hung with high quality stainless steel hinges that have been selected to take the load of a large door.



#### HOLYOAKE LOUVERED DOOR FEATURES

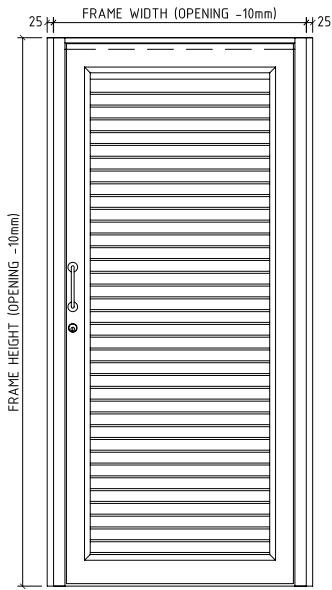


- The outer frame of the door system can be supplied in either flanged or channel form. If the frame is supplied in channel form, a sealant cavity is left to allow for a flush mounted installation.
- The inside edge of the door frame has an edge to trim to. This edge also gives the option of fitting timber reveals. If the door is installed in a thinner wall this edge has been designed to be easily removed.
- The louver doors are constructed with a rigid square frame to fix the hinges and the lock set to. The doors come standard with a high quality lock set.
- The front of the door has a seal on the closing face to eliminate door rattle. This also gives the door a positive closure feeling.
- The hinged posts of the doors have a security lip on the inside edge. This lip is there to prevent the doors being lifted out even if the hinge pins are removed.

With all of these features incorporated into the Holyoake Louver Door System as standard it now makes the appearance and installation of our louver doors second to none.



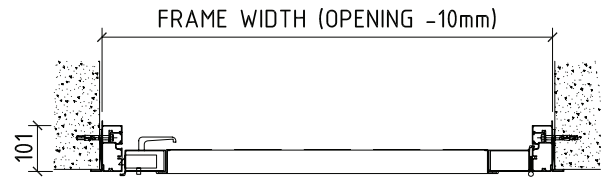
## DIMENSIONAL DATA



Front Elevation



Side Elevation



Plan View



The Louver Door System is robustly constructed in extruded aluminium box sections to provide the strength required to hang a large louver door.

# OHL | PHL Series

## PENTHOUSE LOUVERS

### MODEL OHL-PHL

#### FEATURES

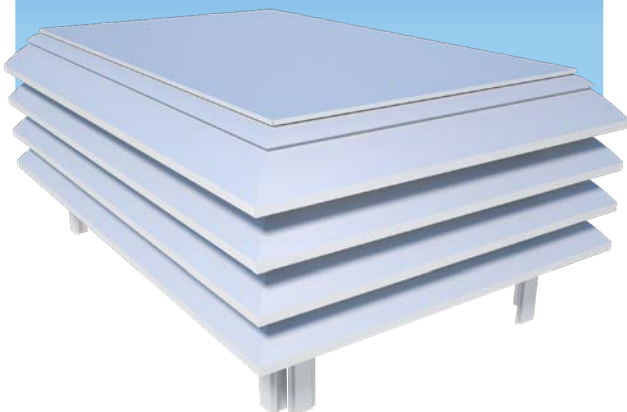
- Available in Various Blade Profiles
- Straight or Curved Blades
- Obstructed Line of Sight
- Box or Mitred Corners
- Modular Assembly

#### CONSTRUCTION

The OHL - PHL louver system is constructed entirely of 6063 T5 extruded aluminium, mechanically locked together ensuring a solid, resilient structure. All louvers are manufactured to the highest fabrication and performance standards.

#### OPTIONS

- Available in a series of different Holyoake blade profiles:
  - 45
  - 102
  - 124
- 40 x 40 vertical mounting angles to each corner
- Can be manufactured in individual panel format, or as a single assembled unit (this option is dependent on the finished size required)
- Powder Coat finishes (Duratec warranty coatings available on request)
- Aluminium or Stainless Steel bird mesh
- Aluminium Blanking
- Mitred or capped corner detail options
- Complete with removable aluminium roof



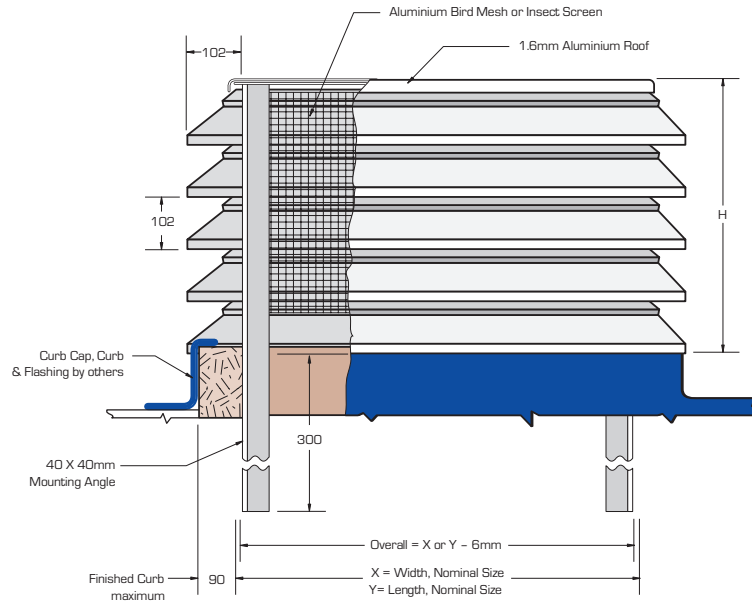
Holyoake Penthouse Louvers are designed and built to become a permanent part of the building. They maintain their attractive appearance and effective weather protection for many years as a result of their solid, extruded aluminium construction and careful workmanship.

Holyoake Penthouse Louvers are manufactured from a selection of blade profiles from the OHL Series. They are finished with mounting angles for easy and versatile mounting on a variety of roof curbs.

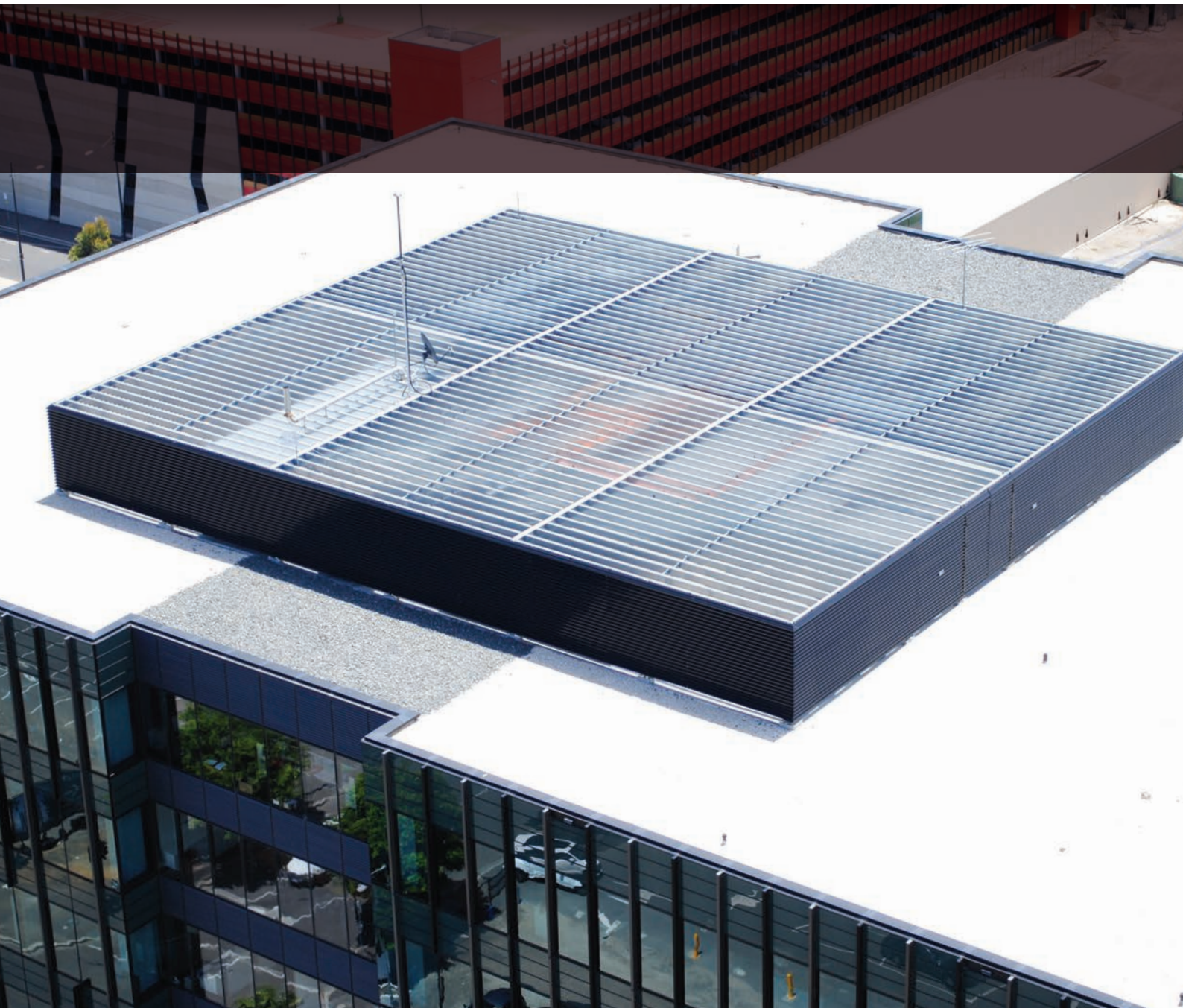




# DIMENSIONAL DATA



Model OHL-PHL-102 illustrated



# Custom Louvers

## CUSTOMISED CONFIGURATIONS

### MODEL OHL-(LOUVER TYPE)

#### FEATURES

- Custom Built to suit Site Requirements
- Obstructed Line of Sight

#### CONSTRUCTION

All bespoke louver systems are constructed entirely of 6063 T5 extruded aluminium, mechanically locked together ensuring a solid, resilient structure. All louvers are manufactured to the highest fabrication and performance standards.

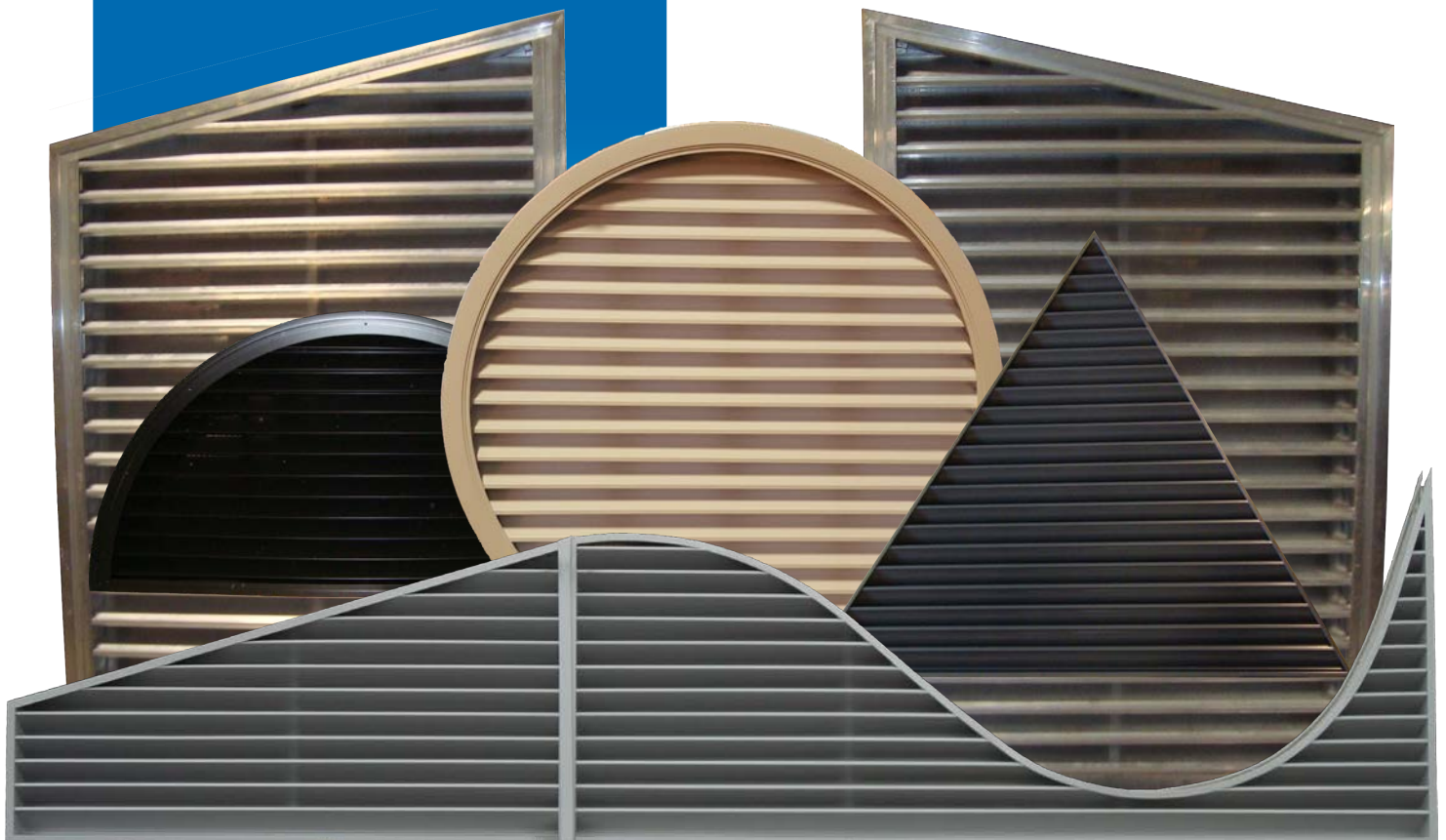
#### OPTIONS

- Powder Coat finishes (Duratec warranty coatings available on request)
- Aluminium or Stainless Steel bird mesh
- Aluminium Blanking



Holyoake has the capability to design and manufacture bespoke louvers to suit non-standard applications. This is in addition to the fabrication of our standard outside louver range. We have the personnel, expertise, and capacity to manufacture high quality products to suit a variety of applications.

Circular, semi-circular, and triangular designs are popular selections, however other more unusual profiles such as hexagonal, polygon, and wave designs have been supplied. For your bespoke louver application, please contact your local Holyoake branch.



# OHL | ST Series

## 2 OR 4 ROW SOUND TRAP

The Holyoake Sound Trap Attachment is a modular assembly designed primarily to be installed to the rear of any louver within the Holyoake range to reduce the sound transmission to and from the environment.

The main advantage of incorporating the ST units to the rear of the standard louver profiles lies in having the ability to achieve a high acoustic capability from the louver whilst maintaining the visual aesthetics of the conventional external system.

The need for the installation of unsightly acoustic panels can be removed with the use of the ST units in combination with louvers from the standard Holyoake range.

The ST units are fabricated with two options: the OHL - ST2 and the OHL - ST4. The choice of which will be dependent on the actual site and the desired attenuation.

Each unit consists of a number of cylindrical sound absorbing elements, set in a staggered arrangement and mounted either vertically or horizontally. These elements are mounted in a sheet metal or aluminium sheet housing designed for the louver selected.

### Note:

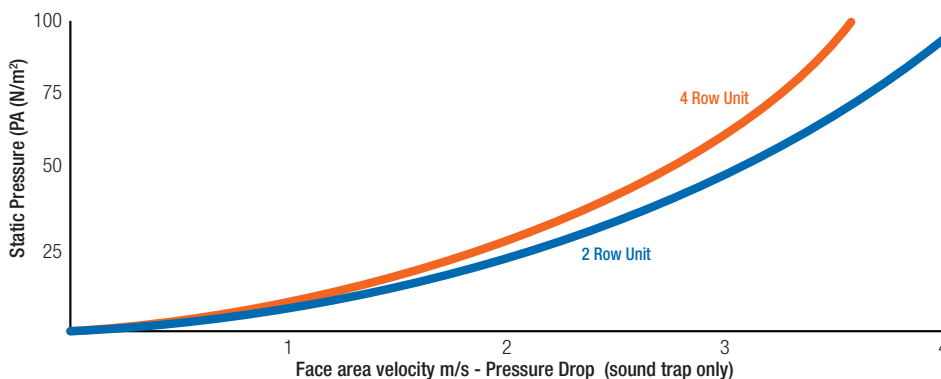
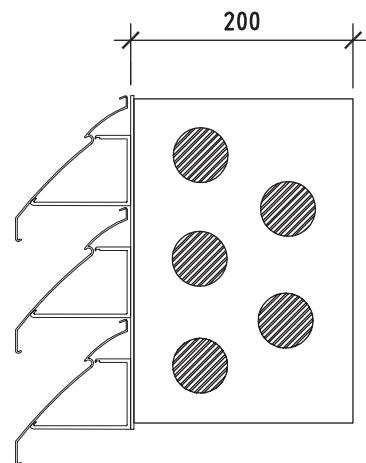
- Louver to be specified by the customer.
- The maximum single unit size is 2400w x 1000h.
- Standard Sound Trap units are constructed using 1.2mm aluminium steel.
- Acoustic Sound Traps can be configured horizontally or vertically.
- 4 row sound trap option available at a length of 400mm.

## MODEL OHL-ST

### FEATURES

- 2 or 4 Row Acoustic Treatment
- Modular Assembly
- Obstructed Line of Sight

### DIMENSIONAL DATA



Frequency Hz	63	125	250	500	1K	2K	4K	8K
<b>Noise Reduction to Free Field (dB)</b>								
2 Row Unit - ST2	14	15	17	20	24	26	27	27
4 Row Unit - ST4	16	17	19	24	35	40	41	39
<b>Insertion Loss (dB)</b>								
2 Row Unit - ST2	0	1	3	5	6	13	8	11
4 Row Unit - ST4	0	1	6	9	12	19	18	15

# BIM Models

## BUILDING INFORMATION MODELING

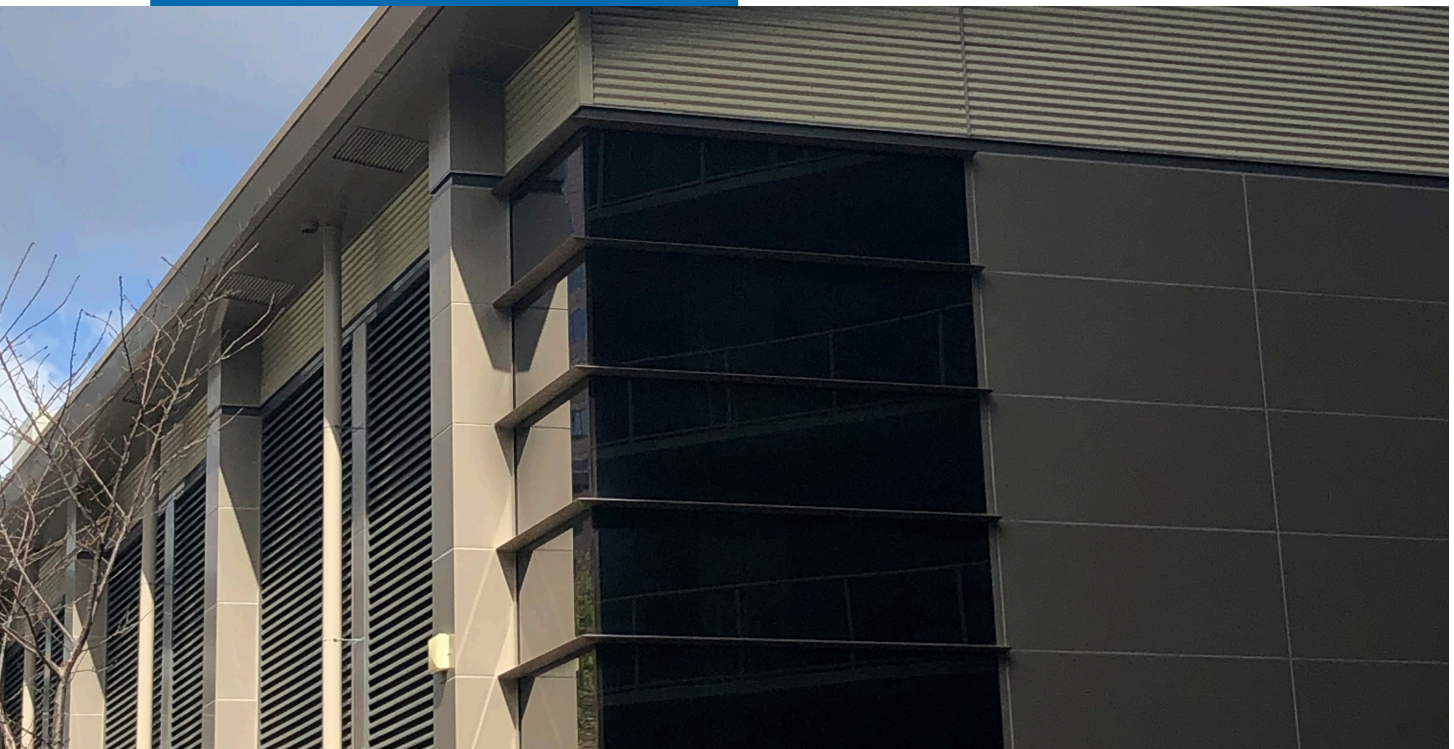
### FEATURES

- Revit BIM Models
- Engineering Support
- In-house Design Expertise
- Product Development
- CAD & REVIT Support

Building Information Modelling (BIM) has become a significant and key component in the forward direction of the Australian and New Zealand Building Industries. The key benefits of BIM include efficient and intelligent 3D modeling, higher quality documentation, quality of information, and improved ability for analysis and design audit.

Holyoake has been at the forefront of this development in the New Zealand Building Industry by modelling our complete standard range of products for Architects and Consultants to apply to their designs. Holyoake Revit BIM models have been built to the highest industry standards ensuring integrated project delivery.

Holyoake also has the ability to design, model, and offer Revit models for our specialised job specific products. Visit the new Holyoake website at [www.holyoake.com](http://www.holyoake.com) where registered users are able to research, compile, review, specify, and download Holyoake Revit product families.



# Code Examples & Suggested Specifications

## HORIZONTAL OUTSIDE LOUVERS

Horizontal Outside Louvers shall be of extruded aluminium construction with blades fixed at their ends with stainless steel screws into a welded aluminium frame. The bottom blade shall overlap the frame and the structure shall be designed to withstand a wind load of 95 Kg/m<sup>2</sup>.

<b>OHL</b>	–	<b>F</b> <b>C</b>	–	<b>34</b> <b>45</b> <b>102</b> <b>124</b>	–	<b>W x H</b>	–	<b>BM</b> <b>IS</b>	–	<b>FINISH</b>
<b>Model</b> <i>Outside Horizontal Louver</i>		<b>Frame Style</b> <i>F = Flange</i> <i>C = Channel</i>		<b>Blade Size &amp; Configuration</b>		<b>Opening</b>		<b>Bird Mesh or Insect Screen</b>		<b>Powder Coat Anodised Mill Aluminium</b>

## DRAINABLE HORIZONTAL OUTSIDE LOUVERS

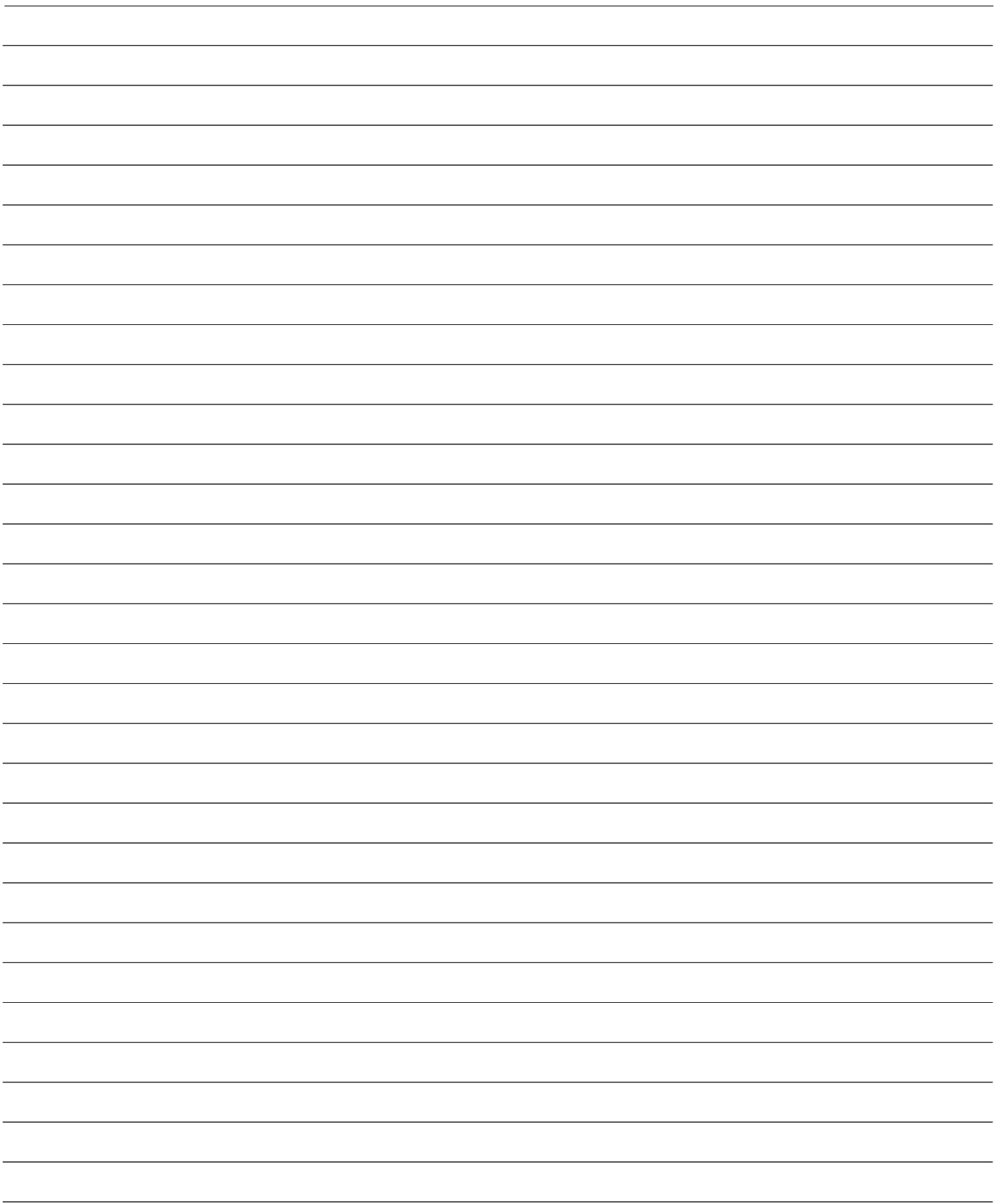
Drainable Horizontal Outside Louvers shall be of extruded aluminium construction with blades which drain through vertical down pipes to discharge water at the bottom of the louver.

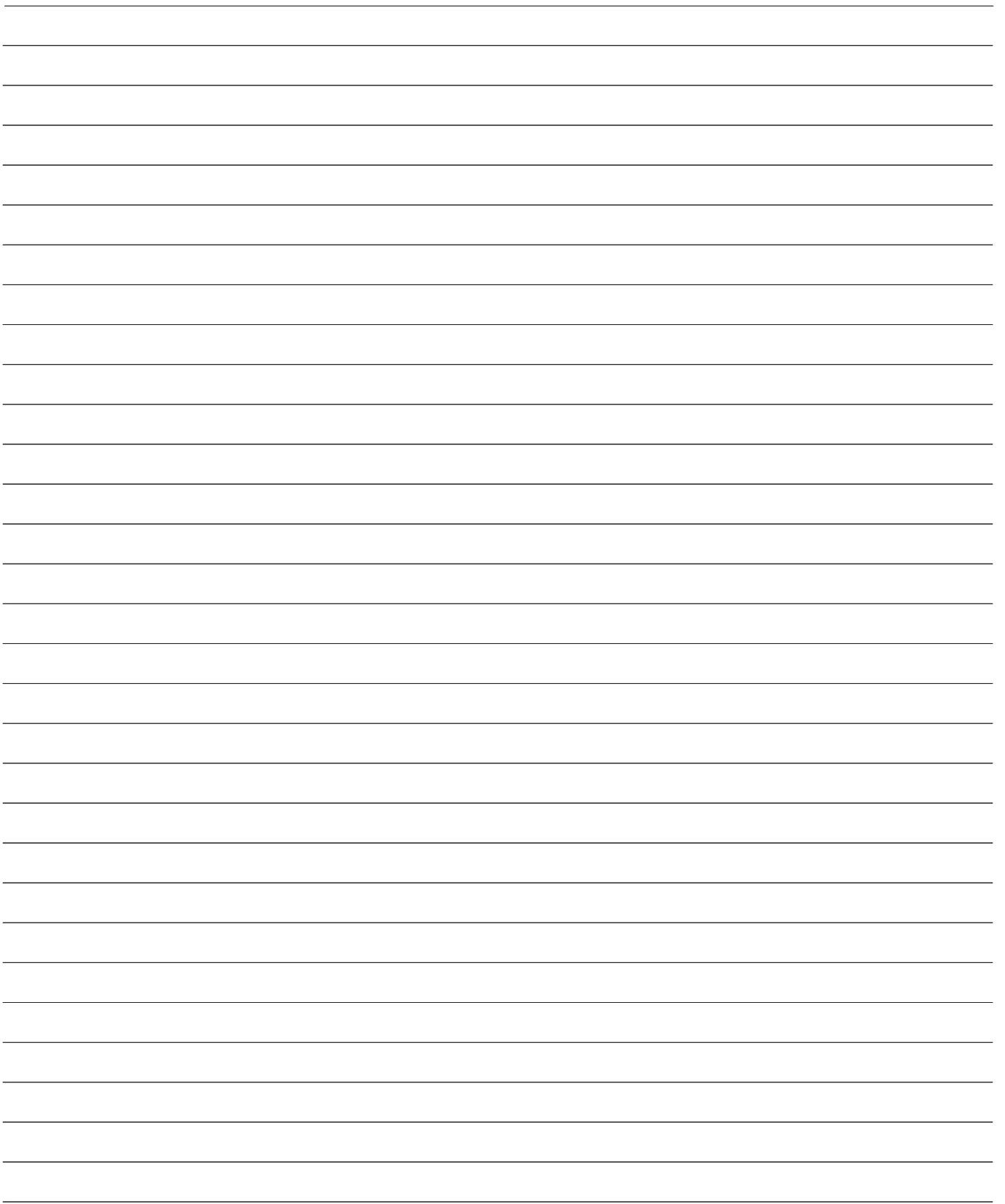
<b>OHL</b>	–	<b>F</b> <b>C</b>	–	<b>D</b>	–	<b>W x H</b>	–	<b>BM</b> <b>IS</b>	–	<b>FINISH</b>
<b>Model</b> <i>Outside Horizontal Louver</i>		<b>Frame Style</b> <i>F = Flange</i> <i>C = Channel</i>		<b>Drainable Bade</b>		<b>Opening</b>		<b>Bird Mesh or Insect Screen</b>		<b>Powder Coat Anodised Mill Aluminium</b>

## VERTICAL OUTSIDE LOUVERS

Vertical Outside Louvers shall be of extruded aluminium construction with blades fixed at ends with stainless steel screws into a mitred and mechanically locked extruded aluminium frame. Intermediate blade stabilising spacer clips shall be fitted where blade length exceeds 900mm and the structure shall be designed to withstand a wind load of 95kg/m.

<b>OVL</b>	–	<b>F</b> <b>C</b>	–	<b>99</b> <b>148</b>	–	<b>W x H</b>	–	<b>BM</b> <b>IS</b>	–	<b>FINISH</b>
<b>Model</b> <i>Outside Vertical Louver</i>		<b>Frame Style</b> <i>F = Flange</i> <i>C = Channel</i>		<b>Blade Size &amp; Configuration</b>		<b>Opening</b>		<b>Bird Mesh or Insect Screen</b>		<b>Powder Coat Anodised Mill Aluminium</b>





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