



4) LOUVRE ROOF

200 CLASSIC OPENING ROOF
200 HORIZON OPENING ROOF

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Technical Specification subject to change without notice





GALLERY OPENING ROOFS



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LOUVRE ROOF

NEW GENERATION OPENING ROOF SYSTEMS



Revolutionise the way you create and control your indoor / outdoor environment with LouvreSpan's new generation of Opening Roof systems.

No other sun control product can equal the stylish benefits of an Opening Roof.

Decks, verandas, patios, BBQ areas, spa / swimming pool areas and the like are transformed into functional year round usable spaces no matter what the weather.

- All aluminium construction including internal extruded gutter system.
- Available powder coat or anodised finish.

There are now two distinct opening roof options to choose from, both operated by the stylish, award winning Helix Pivot System.

200 CLASSIC OPENING ROOF



- While retaining the basic shape of our original Opening Roof system the design has been streamlined and a number of upgrades have been made.
- Helix Pivot 240v motorised or hand operated.
- Blades open full 180 degrees.
- Fully sealed ends with powder coated die cast end caps.
- Hidden woolpile closing strip eliminating metal to metal contact.

200 HORIZON® OPENING ROOF

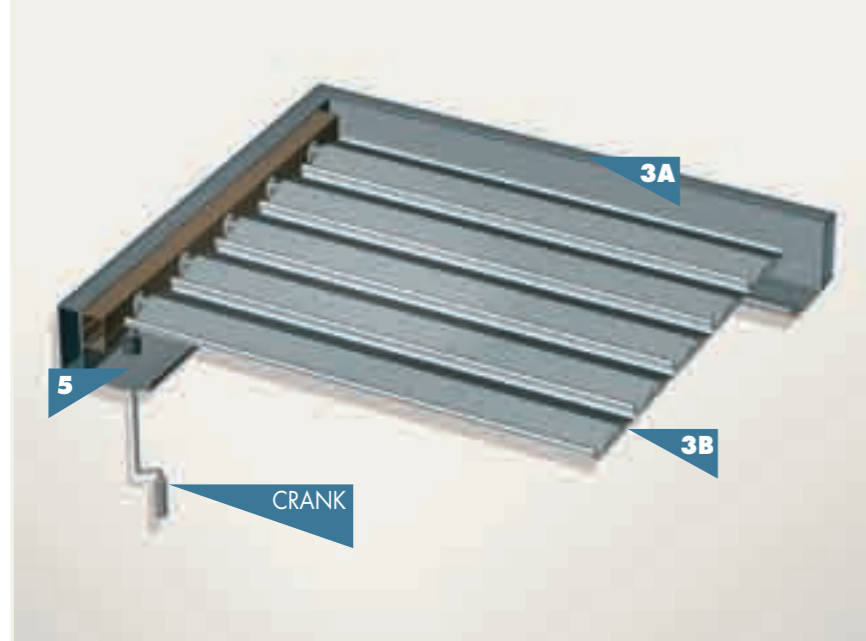


- This fresh new Opening Roof design incorporates bold angular lines and sharp cleanly defined edges. Designed to capture and compliment the look of today's modern architecture.
- All the features of the 200 Classic Opening Roof (left) apply to the 200 Horizon Opening Roof.
- The central vee matches the joins at the blade edge giving a distinctive tongue and groove look.

A. MOTORISED OPTION



B. HAND OPENING OPTION



LOUVRESPAN HELIX PIVOT OPENING ROOF

HOW THE SYSTEM WORKS

Extend your living space beyond four walls and a roof over!

An area under an Opening Roof creates a unique beautiful genuine indoor / outdoor space – usable all year round.

- Perfectly ventilated and shady on a hot summers day.
- Protects both people and property (carpets, furniture) from glare and direct sunlight.
- Enjoy early morning or winter sun as you choose.
- Watch the stars at night or sit snug in a rain shower.
- Design from new, or incorporate into existing buildings.
- Add value, living space and dramatic architectural effect.

Outdoor living should be a pleasant enjoyable part of everyday life – it no longer needs to be an endurance test.

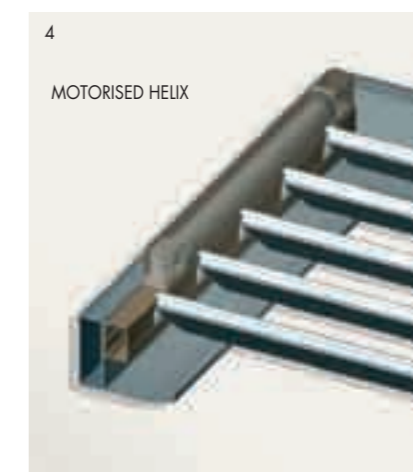
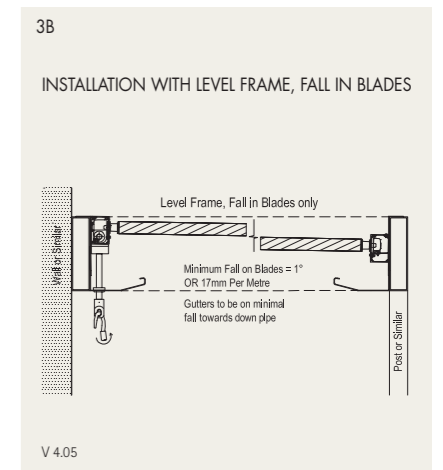
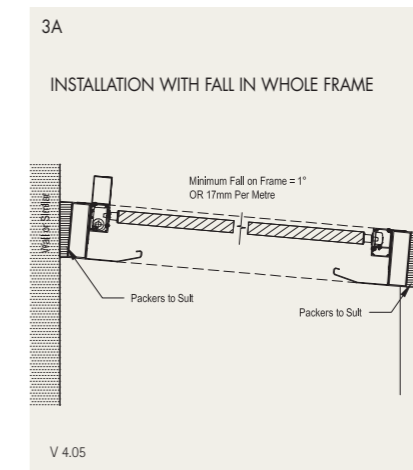
Turn to pages 2.10 for details of Helix® Pivot Systems

LOUVRESPAN HELIX PIVOT OPENING ROOF

HOW THE SYSTEM WORKS

- 1 STRUCTURAL FRAME**
Helix Pivot Opening Roofs can be fitted to a wide range of new and existing structural frames. Timber, aluminium, steel or concrete beams – please discuss options with us.
- 2 INTERNAL GUTTER & STORM WATER OUTLET**
An internal aluminium gutter is fitted to all 4 sides. A Storm water outlet is included at lowest point.
- 3A FRAME HAS FALL**
Where possible incorporate suitable fall within the structural frame.
- 3B FALL ON BLADES ONLY**
– frame is level, fall on blades only

A minimum of one degree of fall (17mm per m.) is required with a beam minimum depth of 200mm.
- 4 MOTORISED HELIX PIVOT**
Motorised Helix Pivot systems are operated by 240v Tubular motors. A wide range of control and automation options are available.
- 5. HAND OPERATED HELIX PIVOT**
Helix Pivot systems can also be controlled by a hand operated crank & gearbox.



Automated remote control options available
Turn to pages 2.10 for details of Helix Pivot Systemsed



STRUCTURAL OPENING ROOF FRAMES

TYPES OF FRAMES

- There are many design options and material choices available when considering the Opening Roof Structural Frame.

- Often an existing pergola structure can be easily modified to receive an Opening Roof.
- LouvreSpan specialises in the design and installation of a wide range of custom made all aluminium post and beam structures.

- Strong, lightweight and low maintenance, they can be powder coated or anodised to match with or contrast to the Opening Roof.
- Contact LouvreSpan to discuss design options.



TIMBER

- Convert an existing pergola or fit within a new wooden beam & post frame



ALUMINIUM BOX

- Strong, lightweight, maintenance free. Full colour options. Discuss with LouvreSpan



STEEL

- Steel RHS, SHS, PFC are all suitable. Ideal for cantilevered frames



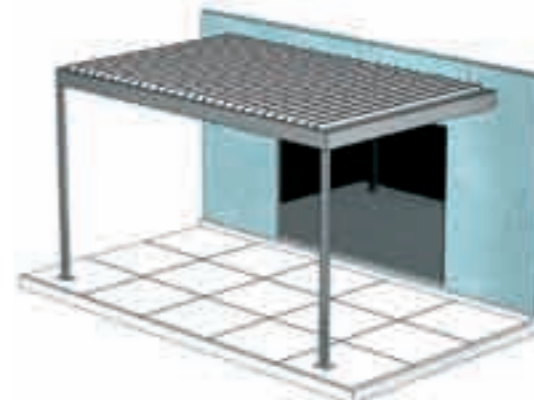
CONCRETE OR RENDERED FINISH

- Concrete provides an ideal stable frame
- Plastered beams require solid internal fixing & good flashing details

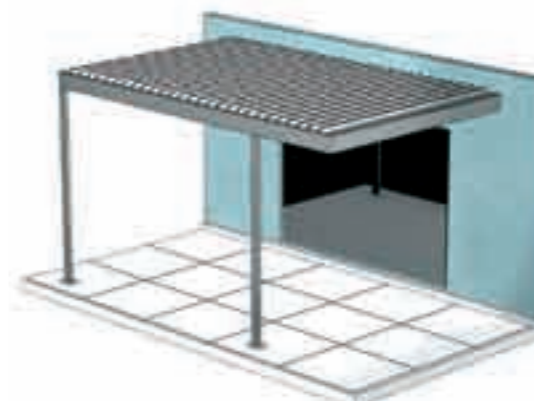
TYPICAL DETAIL ALUMINIUM BEAM & POST STRUCTURES

THREE BASIC BEAM DESIGNS

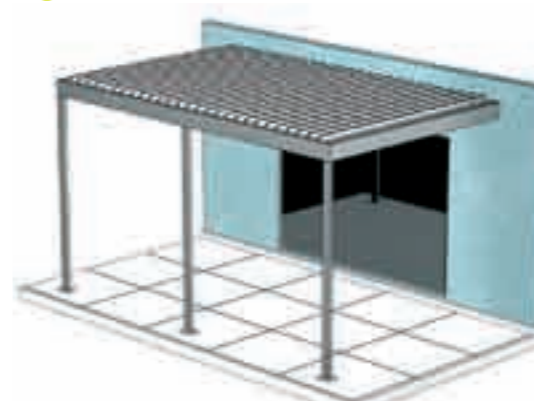
1 SIMPLY SUPPORTED



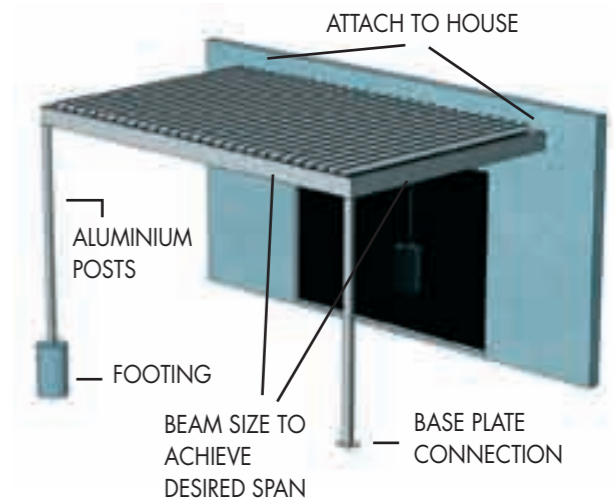
2 SINGLE CANTILEVER



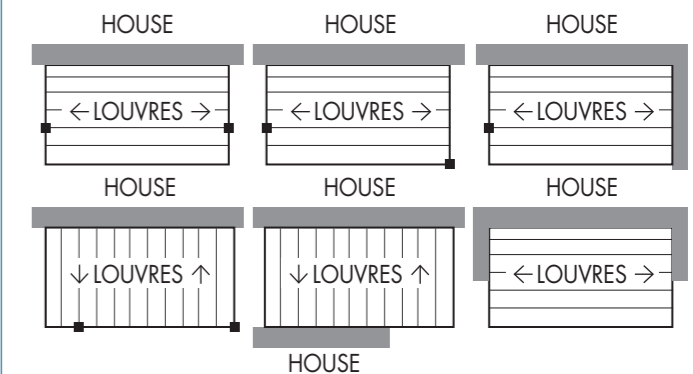
3 CONTINUOUS SPAN



TYPICAL ALUMINIUM BEAM & POST ASSEMBLY



CONFIGURATIONS AVAILABLE



REFER TO SECTION 10 FOR FULL ENGINEERING DETAILS.

ALUMINIUM BEAMS	ALUMINIUM POSTS
150 X 50 X 3	50 X 50 X 3
2/150 X 50 X 3	75 X 50 X 3
200 X 50 X 3	75 X 75 X 3
2/200 X 50 X 3	100 X 50 X 3
250 X 50 X 3	100 X 100 X 3
2/250 X 50 X 3	

TECHNICAL DETAILS

200 CLASSIC OPENING ROOF



BLADE SPECIFICATIONS

- Weight per lineal metre 1.861 kgm
- Actual blade width 200 mm
- Blade cover - opening system 188.5 mm
- Weight per square metre - opening system 9.85 kg/sqm
- Blade centres - opening system 188 mm

SPANS AT A GLANCE

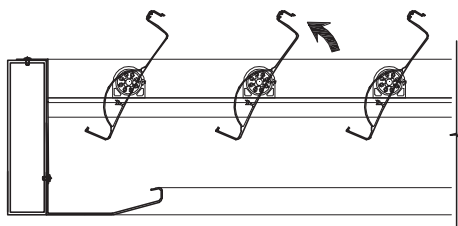
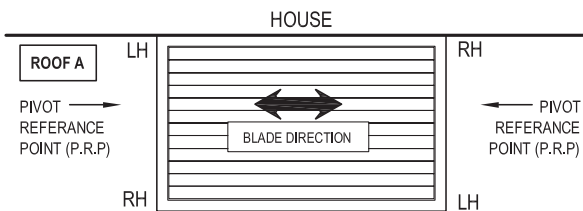
IMPORTANT: Refer to page section 10 for engineering details. Factors such as climate, terrain, shielding, location, type of structure all contribute to determine spans.

WIND ZONE	INSIDE	LOW	MED	HIGH	VERY HIGH
Factored wind speed at building	Self wt	32m/s-115km/h	37m/s-133km/h	44m/s-158km/h	50m/s-179km/h
Ultimate limit state loads (kPa)		+1.1 & -1.38	+1.48 & -1.85	+2.09 & -2.61	+2.70 & -3.38
180 Classic Opening Roof	4500	3900	3750	3300	2950

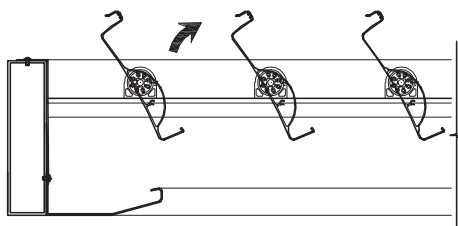
INSTALLATION OPTIONS

CALCULATE OPTIMUM FRAME OPENING SIZES

OPENING DIRECTION OF BLADES

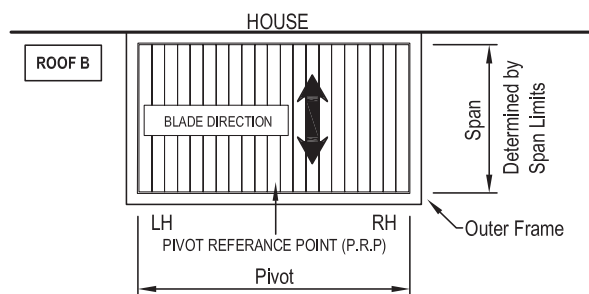


Right hand Up from P.R.P



Left Hand Up from P.R.P

CALCULATE OPTIMUM FRAME OPENING SIZES



P.R.P: Establish Pivot Reference point (P.R.P)
There are two options Roof (A) and Roof (B).

Span: Check engineering span limits

Pivot: Example Calculation showing - 17 Blades

Step 1

16 blades x 188 (CRS)	=	3008
1 blade @ 200 (Blade Size)	+	200
17 blades in total	=	3208

Step 2

Blade Cover	3208
+2/22mm Clearance @ ends	=
Total exact pivot length	= 3292mm

- 150mm Wide internal gutter provides cover if clearance increases over 22mm at ends

- Blade direction either Right Hand up or Left Hand up.

TECHNICAL DETAILS 200 CLASSIC OPENING ROOF



CORNER SECTIONAL VIEW - MOTORISED



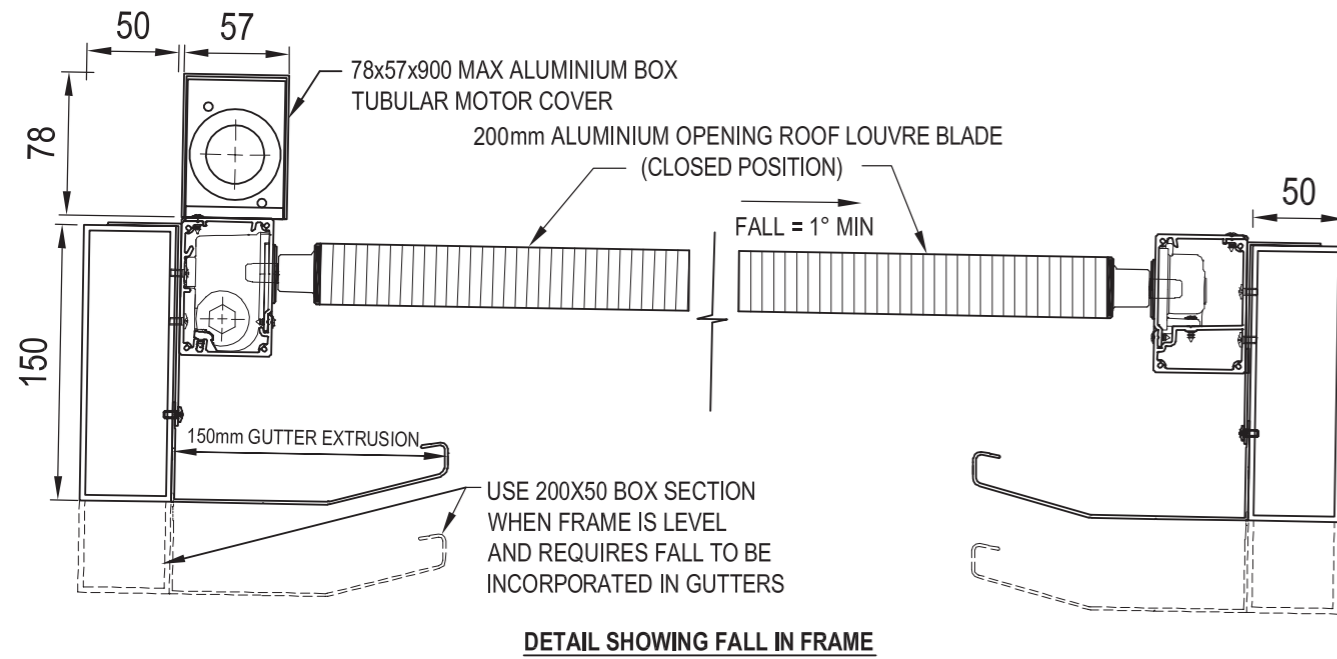
CORNER SECTIONAL VIEW - HAND OPENING



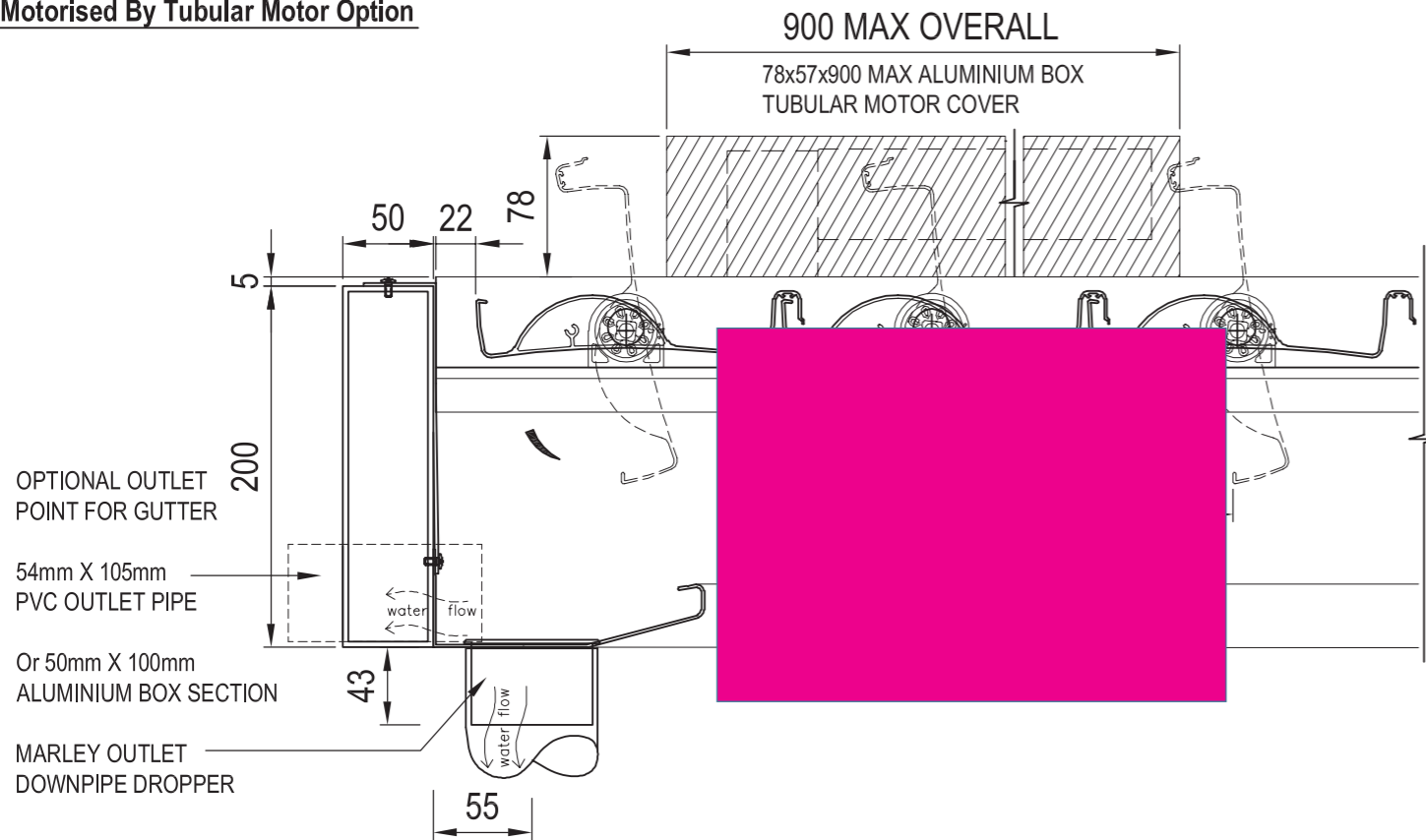
TYPICAL DETAIL - 200mm CLASSIC LOUVRE OPENING ROOF

SIDE ELEVATION

Motorised By Tubular Motor Option



Motorised By Tubular Motor Option

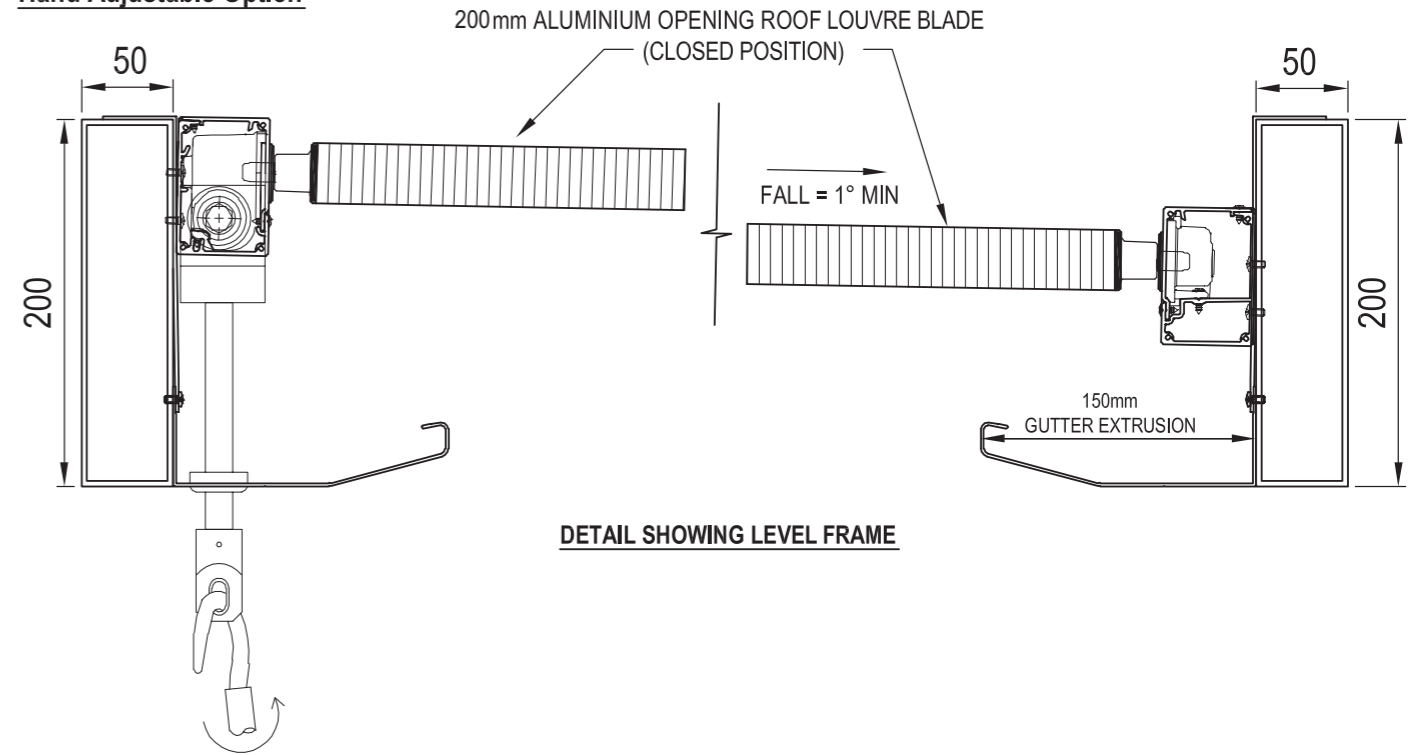


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Scale	1:4
Date Modified	10 April 2006

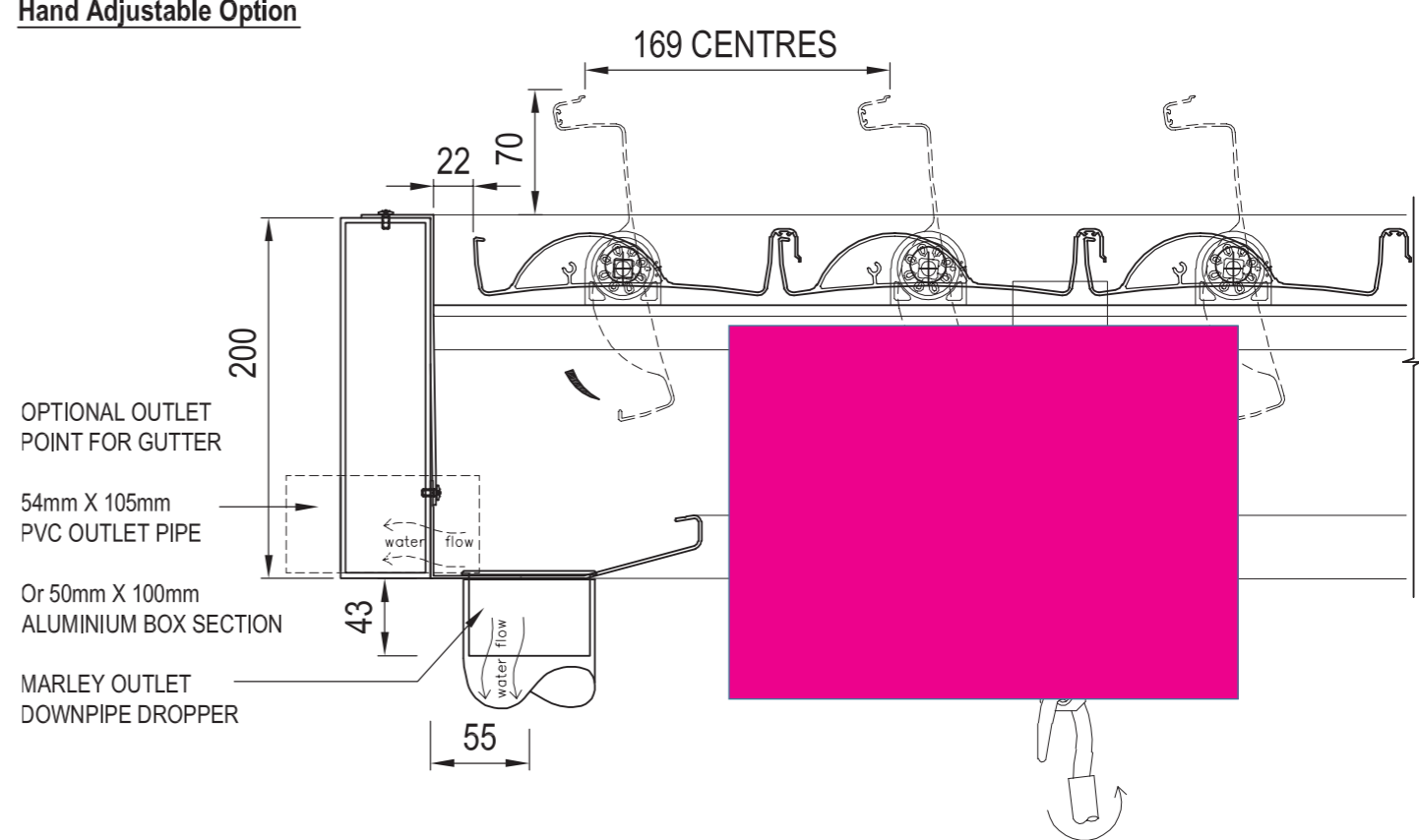
TYPICAL DETAIL - 200mm CLASSIC LOUVRE OPENING ROOF

SIDE ELEVATION

Hand Adjustable Option



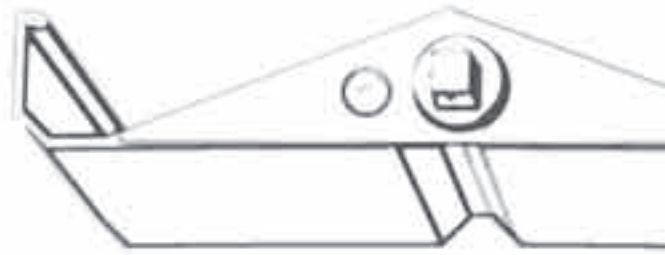
Hand Adjustable Option



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Scale	1:4
Date Modified	10 April 2006

TECHNICAL DETAILS

200 HORIZON OPENING ROOF



BLADE SPECIFICATIONS

- Weight per lineal metre 2.095 kgm
- Actual blade width 200 mm
- Blade cover - opening system 188 mm
- Weight per square metre - opening system 11.15 kg/sqm
- Blade centres - opening system 188 mm

SPANS AT A GLANCE

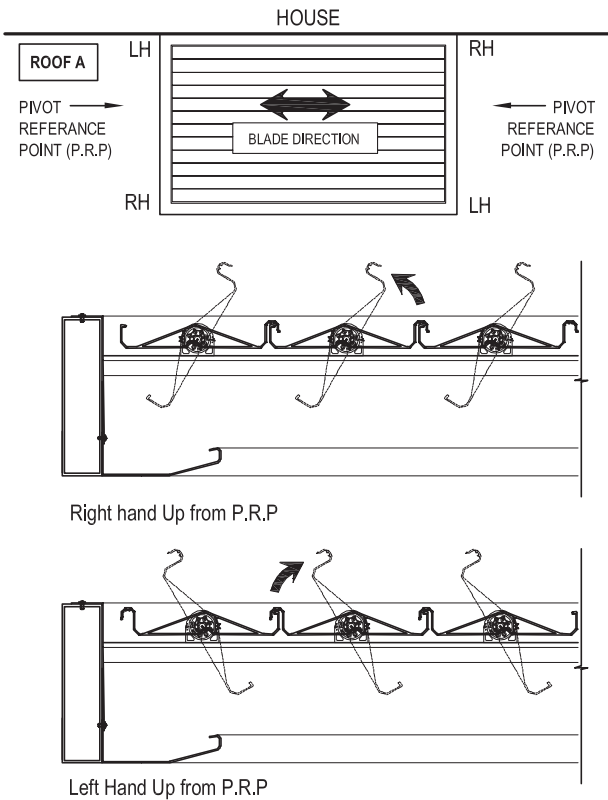
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Ultimate limit state loads (kPa)		+1.1 & -1.38	+1.48 & -1.85	+2.09 & -2.61	+2.70 & -3.38
200 Linear Opening Roof	4100	3800	3550	3100	2800

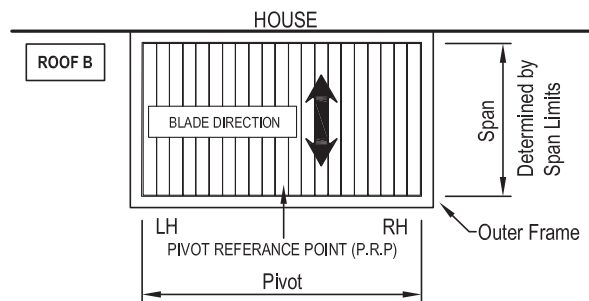
INSTALLATION OPTIONS

CALCULATE OPTIMUM FRAME OPENING SIZES

OPENING DIRECTION OF BLADES



CALCULATE OPTIMUM FRAME OPENING SIZES



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There are two options Roof (A) and Roof (B).

Span: Check engineering span limits

Pivot: Example Calculation showing - 17 Blades

$$\begin{aligned} \text{Step 1} \quad & 16 \text{ blades} \times 188 \text{ (CRS)} &= & 3008 \\ & \frac{1 \text{ blade @ } 200 \text{ (Blade Size)} + 200}{17 \text{ blades in total}} &= & 3208 \end{aligned}$$

$$\begin{aligned} \text{Step 2} \quad & \text{Blade Cover} & & 3208 \\ & + 2 \times 22\text{mm Clearance @ ends} &= & 44 \\ & \text{Total exact pivot length} &= & 3252\text{mm} \end{aligned}$$

- 150mm Wide internal gutter provides cover if clearance increases over 22mm at ends

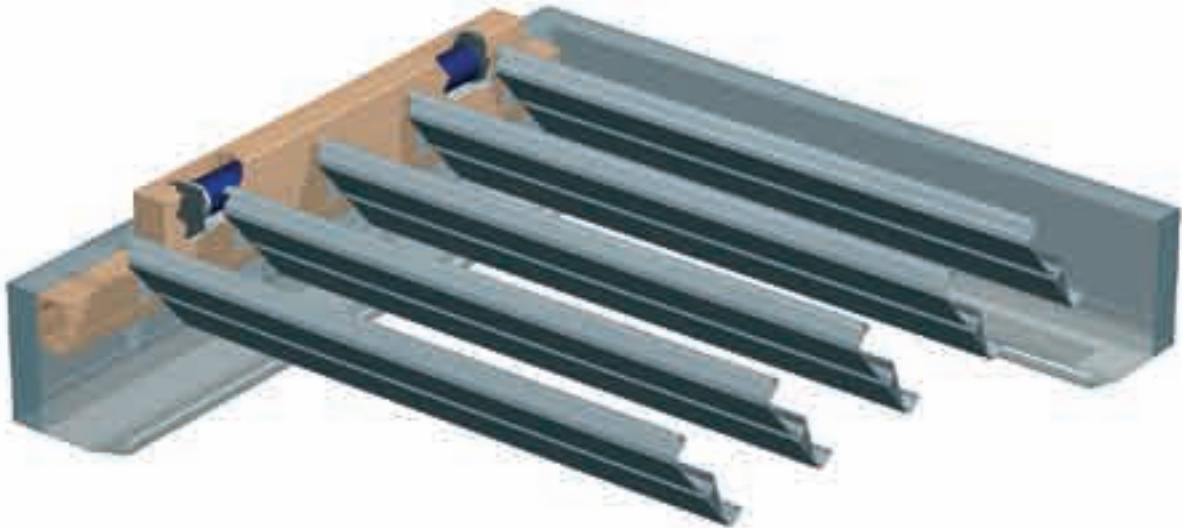
- Blade direction either Right Hand up or Left Hand up.

TECHNICAL DETAILS

200 HORIZON OPENING ROOF



CORNER SECTIONAL VIEW - MOTORISED



CORNER SECTIONAL VIEW - HAND OPENING

