

# LOUVRE 100 Series

100mm pitch external louvre



## QUICK FACTS

- Aluminium construction
- Intake or exhaust application
- Horizontal blades
- 43% free area
- C3 @ 1.5 m/s weather rating
- Cd coefficient 0.207
- Available in panels, seamless continuous design, penthouse doors, mitred corners or screens



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# Technical description

## Design

The Louvre 100 Series is manufactured as a panellised system or a site assembled linear system. For ease of installation on site the panellised system can be coupled together to form a seamless continuous solution or supplied to site in component form for site assembly in extruded bar lengths. The 100mm pitch louvre is designed for larger louvre sizes presenting a more proportional aesthetic.

## Material and surface treatment

To give a high quality finish our external louvres are manufactured from extruded aluminium grade ENAW 6063T6 to BS EN 755-1 & 755-9 standard. Individual blades screw fixed to frame for added security (panellised system)

To give you choice & longer life our external louvres are available in a wide range of polyester powder coated colours which includes a range of anodic (anodised effect) powders.

Approved Architectural Applicator of Interpon D Products on Architectural Aluminium Substrates Conforming to: BS EN 12206:2004 Part 1

Pre-treatment & powder coating is achieved in accordance with the Qualicoat guidelines by a Qualicoat approved applicator.

Architectural aluminium powder ranges available:

- Interpon D1036 Range (Qualicoat Class 1)
- Interpon D1036 Textured Range (Qualicoat Class 1)
- Interpon D2525 Range (Qualicoat Class 2)
- Interpon D2525 Anodic Range (Qualicoat Class 2)
- Dylac Tiger Paints (Qualicoat Class 1)

Others are available on request & technical review.

Every powder coated colour is also available with a gloss level. Some gloss levels form part of a standard range of colours, others are special order colours. The range of gloss levels offers shades such as:

- Matt
- Satin (semi-gloss)
- Gloss

## Accessories

### Bird mesh

The product can be fitted with a 18g expanded aluminium bird mesh at the rear.

Note: The pressure drop figures are based on bird mesh fitted.

### Insect mesh

The product can be fitted with a 23g expanded aluminium insect mesh at the rear. Insect mesh will reduce the free area by 20%, therefore please allow a factor of x1.2 to pressure loss data.

### Fixing details

For our range of fixing details, please see our installation section.

For alternative fixings please contact our contracts team.

### Blanking panel

Blanking panels can be fitted to areas of the louvre where ventilation is not required.

Panels can be provided with cut-outs to the customers bespoke requirements. Panels can be fixed with rivets or removable with demountable screws.

### Plenum

The plenums are constructed from galvanised sheet steel. They can be manufactured with either top or side entry spigots, circular, square or rectangular.

## Planning

100 Series Louvre can be used to fabricate the below products:

- Louvre panel
- Continuous louvres
- Louvre door
- Penthouse
- Screen
- Corner section mitred & welded
- Bespoke shapes available

We can design and manufacture our louvres to suit your application, perfectly. We can provide your team with full design and technical assistance by utilising our design and manufacturing experience. Combine this with our technical and testing resources we can always deliver a cost effective workable solution.

We routinely build samples and mock-ups along with full construction drawings so that we can manufacture the perfect louvre for your application – every time.

## Installation

When you need the security of a fully contracted solution we can provide our dedicated installation team. This service provides a competitive fixed cost and risk free supply and installation service.

## LOUVRE 100 series

With a strong focus on communication and superb customer service, we are able to work in all possible site environments, diligently undertaking all risk assessments, method statements and health and safety considerations are a routine part of our working culture.

### **Maintenance**

Louvres pose a low maintain facade solution that can achieve an architect 's vision without compromising on functionality. However, to extend the life of your louvres, a simple periodic cleaning regime is required to maintain appearance.

For fixed blade louvres with no moving parts, maintenance is confined to an inspection and cleaning regime.

### **Environment**

Our standard power coating process is suitable for environments up to C4 external classification, ISO 12944-2 as standard.

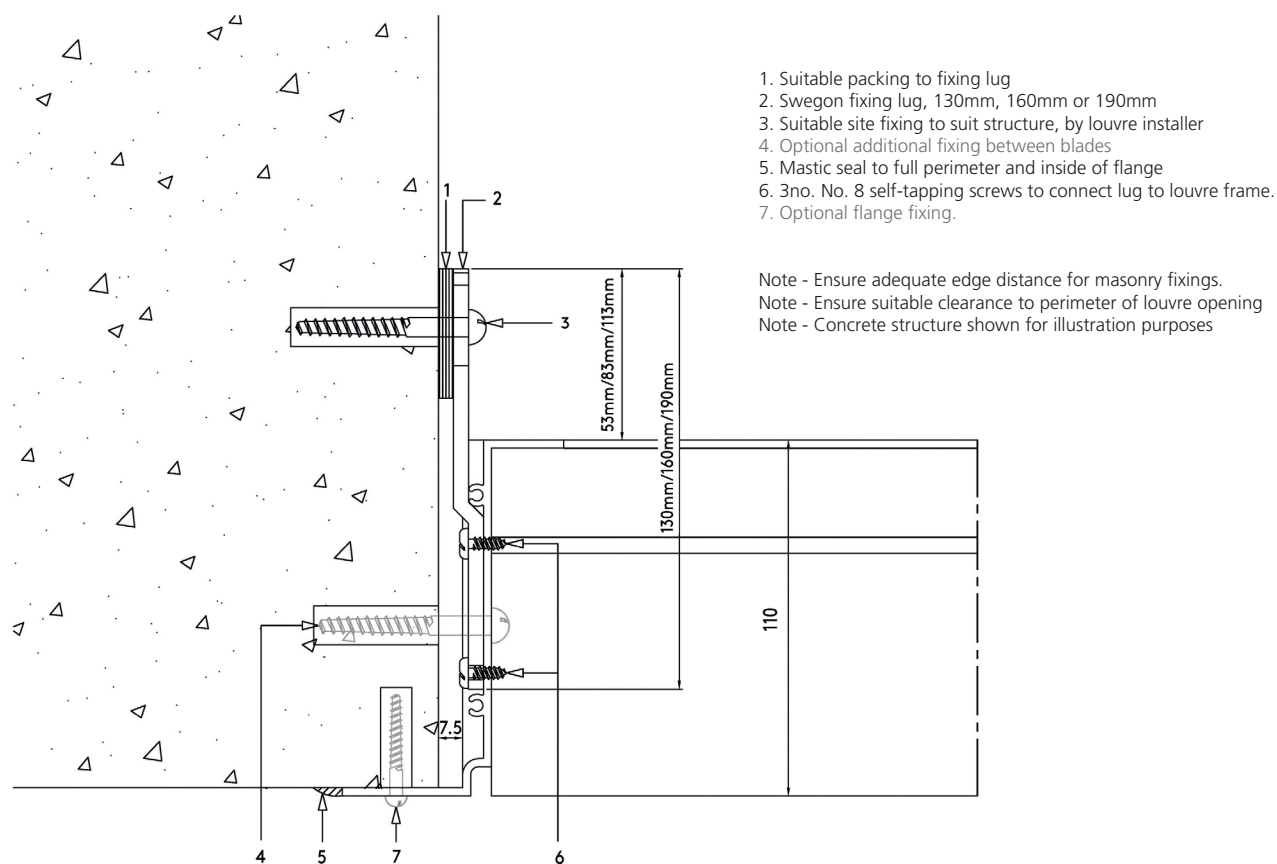
Upon request coatings can be provided to meet coastal and marine environments.

Upon request, Swegon can offer guarantees of up to 25 years on our coatings.

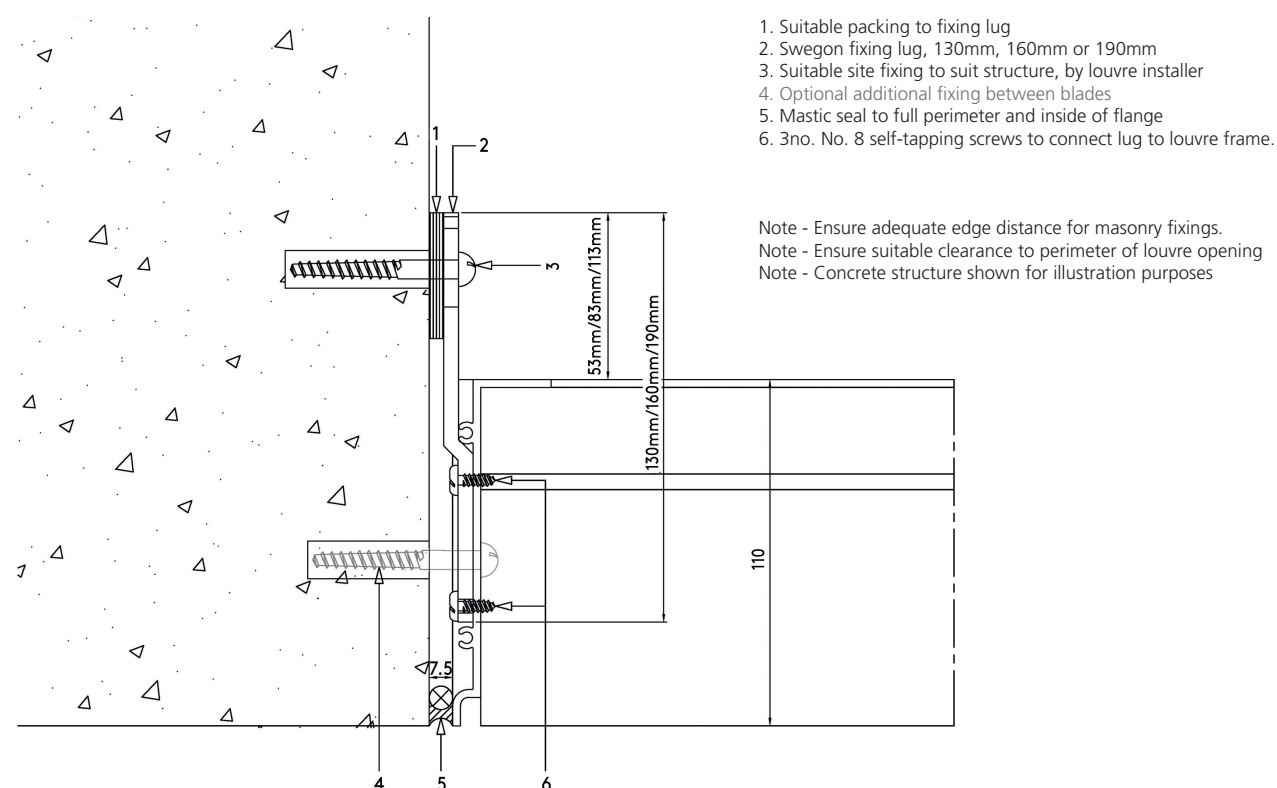
## Installation

### Typical fixing arrangements

Louvre 100 Series typical A frame jamb fixing detail

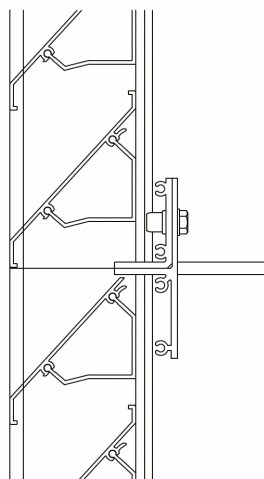
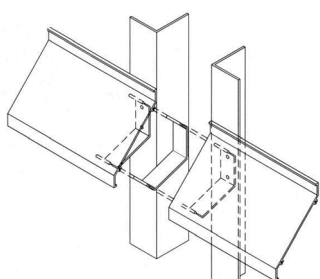
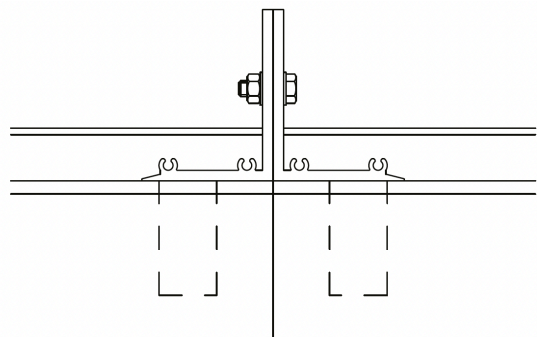


Louvre 100 Series typical AC frame jamb fixing detail

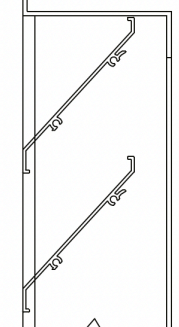
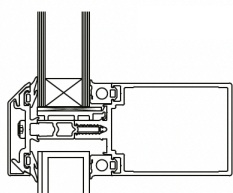


## Continuous line coupling details

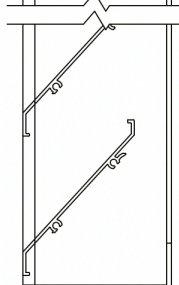
Typical details for horizontal and vertical couplings, similar for all louvre types



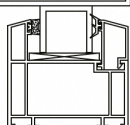
## Fitting into glazing system



Alternative Frame



Standard Frame



# Sizing

- Pressure drop figures are based on a 1m x 1m test sample with bird wire guard fitted.
- Weather classifications to BS EN ISO 13030 based on 1m x 1m test sample.
- Generated noise data are sound power levels (Lw)
- The table shows data for sound levels in a room with an absorption area equivalent of 273m<sup>2</sup> and measured 1m from louvre.

## Key Figures

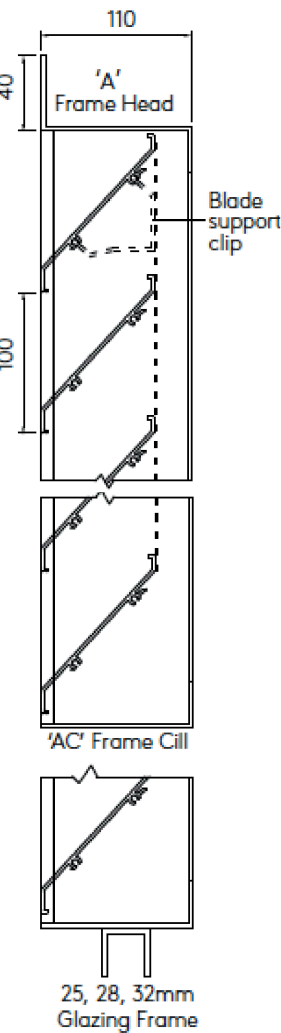
Free Area	43%
Weather Rating	C3 @ 1.5m/s
Blade Thickness	2mm
Blade Pitch	100mm
Cd coefficient	0.207

100 Series performance data							
Face Velocity (m/s)	0.5	1	1.5	2	2.5	3	3.5
Pressure Drop (Pa)	4	14	32	56	88	126	172
Weather Rating (Class)	C	C	C	D	D	D	D
Sound Power, Lw (dB re 1pW)	30	47	57	65	70	75	79

## Blade profile comparison

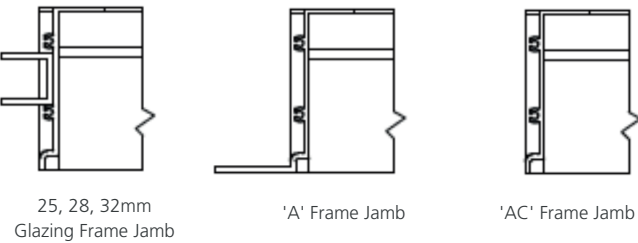
Metal Louvre	Type	Free Area	Blade	Profile Depth	Fixing Options	Weather Rating	Cd Coefficient
SLV-S	Panel/ Linear	58%	34mm	110mm	Glazed In or A/AC	A2 @ 3.5 m/s	0.364
SLH-S	Panel/ Linear	53%	50mm	110mm	Glazed In or A/AC	B2 @ 1.5 m/s	0.342
DB50	Panel	43%	21mm	51mm	Glazed In or A/AC	A3 @ 2.4 m/s	0.22
100 series	Panel/ Linear	43%	100mm	110mm	Glazed In or A/ AC	C3 @ 1.5 m/s	0.207
75 series	Panel/ Linear	50%	75mm	80mm	Glazed In or A/ AC	C3 @ 1.5 m/s	0.229
50 series	Panel/ Linear	47%	50mm	60mm	Glazed In or A/ AC	C3 @ 1.5 m/s	0.224
Slimtype Louvre	Panel	40%	42.5mm	25 / 28mm	Glazed In	C4 @ 0.5 m/s	0.189

# Dimensions and weights



Weights
For louvres less than 0.25m <sup>2</sup> calculate using 18kg/m <sup>2</sup>
For louvres greater than 0.25m <sup>2</sup> calculate using 13kg/m <sup>2</sup>

## Frame Detail



# Order key

**Composite Reference:** 100s/A/A/A/A/BWG/FLL/FAL/N/PPC/7016/MATT

## Diffuser order Key

		1	2	3	4	5	6	7	8	9	10	11
<b>Order example :</b>	100S	A	A	A	A	BWG	FLL	FAL	N	PPC	7016	MATT
<b>LH Jamb type:</b>												
A	A Frame (Flanged)											
AC	AC Frame (Flangeless)											
20CH	20CH Frame (20mm Glazing)											
25CH	25CH Frame (25mm Glazing)											
28CH	28CH Frame (28mm Glazing)											
32CH	32CH Frame (32mm Glazing)											
45M	45mm Mullion											
65M	65mm Mullion											
<b>RH Jamb type:</b>												
A	A Frame (Flanged)											
AC	AC Frame (Flangeless)											
20CH	20CH Frame (20mm Glazing)											
25CH	25CH Frame (25mm Glazing)											
28CH	28CH Frame (28mm Glazing)											
32CH	32CH Frame (32mm Glazing)											
45M	45mm Mullion											
65M	65mm Mullion											
<b>Head type:</b>												
A	A Frame (Flanged)											
AC	AC Frame (Flangeless)											
20CH	20CH Frame (20mm Glazing)											
25CH	25CH Frame (25mm Glazing)											
28CH	28CH Frame (28mm Glazing)											
32CH	32CH Frame (32mm Glazing)											
TFRM	Transom Frame											
<b>Cill type:</b>												
A	A Frame (Flanged)											
AC	AC Frame (Flangeless)											
20CH	20CH Frame (20mm Glazing)											
25CH	25CH Frame (25mm Glazing)											
28CH	28CH Frame (28mm Glazing)											
32CH	32CH Frame (32mm Glazing)											
TFRM	Transom Frame											
<b>Backing type:</b>												
None	None											
BWG	Bird Wire Guard											
IS	Insect Screen											
BP	Fixed Blanking Plate											
RBP	Removable Blanking Plate											
<b>Fixing lugs jamb:</b>												
None	None											
FLS	130mm fixing lug											
FLM	160mm fixing lug											
FLL	190mm fixing lug											
<b>Fixing lugs head / cill:</b>												
None	None											
FAS	53x40 Fixing Lug											
FAM	83x40 Fixing Lug											
FAL	113x40 Fixing Lug											
<b>Clip on blade:</b>												
Y	Yes											
N	No (standard)											
<b>Finish:</b>												
M	Mill											
PPC	Polyester Powder Coat Interpon D1036 Range											
SPC	Special Polyester Powder coat											
NA	Naturally Anodised											
<b>Colour:</b>												
RAL 7015	Slate Grey											
RAL 7016	Anthracite Grey											
RAL 7021	Black Grey											
RAL 7037	Dusty Grey											
RAL 7042	Traffic Grey											
RAL 5011	Steel Blue											
RAL 9005	Jet Black											
RAL 9010	Standard White											
RAL 9016	Alternative white											
	For other standard colour please consult our office											
<b>Gloss level:</b>												
MATT	Matt Finish											
SATIN	Satin (semi-gloss) Finish											
GLOSS	Gloss Finish											

## Specification example

### Louvre

- C3 @ 1.5m/s weather rating under normal weather conditions
- Manufactured from Extruded aluminium grade ENAW 6063T6 to BS EN 755-1 and 755-9.
- Individual blades screw fixed to frame for added security (panellised system)

### Finish

- The powder coating will be a: Polyester Powder Interpon D to EN12206-1 or Qualicoat Class 1 and Manufactured by Akzo Nobel to ISO 9001 (9002)
- The colour shall be [RAL\_\_\_\_] from the Interpon D\_\_\_\_range.
- Applicator Requirements: The powder coating application shall be carried out by an Interpon D Approved Applicator only in accordance with EN12206-1 or Qualicoat. Only one coating plant shall be used for the Works along with one batch of powder, unless otherwise accepted by the Client.
- In addition to the requirements of EN12206-1, the pre-treatment shall use a chromate or approved chrome-free process as stipulated by Qualicoat.
- The Powder Coating, when tested to EN 13501-1;2018 shall have achieve an A2, s1-d0 rating.