

# MASTERING AIR TRANSFER

CONTINUOUS LOUVRE SYSTEMS





# CONTENTS



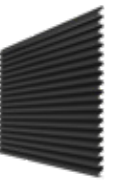



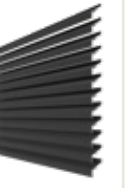






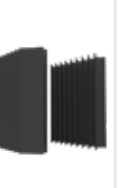
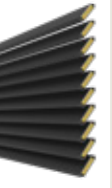






































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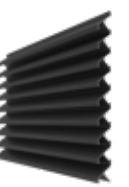





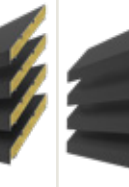
















































// *When developing innovative solutions, we pay full attention to the harmony between technical performance and aesthetics, to create architectural added value for every building.* //



# PRODUCT OVERVIEW

	L.033.01	L.033CL	L.033IM1	L.033.08	L.033V	L.050.00	L.050.25		L.050HF	L.050CL	L.050IM1	L.050IM2	L.050W	L.050WS	L.050WV	L.060AC
																
Page number	P. 26	P. 28	P. 28	P. 30	P. 30	P. 32	P. 34		P. 34	P. 36	P. 36	P. 36	P. 38	P. 38	P. 38	P. 42
Blade pitch	33.3	33.3	33.3	33.3	33.3	50	50		50	50	50	50	50	50	50	60
Airflow		N/A								N/A						
Water-repellency		N/A	Unavailable				Unavailable			N/A				Unavailable		
Visual seclusion																

	L.060HF	L.066.01	L.066S	L.066.06	L.066CL	L.066IM1	L.066P		L.066V	L.075HF	L.120.01	L.150ACL	L.150ACS	L.150DAC	L.170ACL	L.170 ACS	L.170DAC
																	
Page number	P. 40	P. 44	P. 44	P. 44	P. 46	P. 46	P. 50		P. 48	P. 52	P. 54	P. 56	P. 56	P. 58	P. 60	P. 60	P. 62
Blade pitch	60	66	66	66	66	66	66		66	75	120	150	150	150	170	170	170
Airflow					N/A												
Water-repellency			Unavailable		N/A	Unavailable	Unavailable							Unavail-able			Unavail-able
Visual seclusion																	

UN: Unavailable  
N/A: Not applicable

Consult our  
colour guide





# WHY CONTINUOUS LOUVRE SYSTEMS

## LINIUS CONTINUOUS LOUVRE SYSTEMS

Renson has been investing in the creation of healthy spaces for more than 115 years now. This has resulted in a wide range of products, including a versatile range of aluminium façade systems. Linius combines a **high standard of quality with functionality and durability**. The mounting elements for the profiles are invisibly concealed for a Streamlined, contemporary appeal that also offers numerous interesting benefits.



### Optimum ventilation

Tailored to the needs specific to data centres, Linius offers a solution that ensures the desired airflow.



### Sound damping

Renson acoustic blades are provided with a non-flammable mineral wool for optimum sound damping.



### Visual seclusion

Linius is an open continuous louvre system that guarantees visual seclusion for technical installations.



### Rain-repellency

Linius was tested according to the EN 13030:2001 standard with torrential rain at a rate of 75 L/h and a wind speed of 13 m/s.



### Unique façade design

With blades in all possible colours and numerous shapes, Linius offers extensive possibilities for design in terms of aesthetics, with curved blades as an added bonus.

The Linius façade system with horizontal blades provides an **aesthetic and functional building envelope**. Renson's Linius blades have been a reliable constant in its product range for many years and are used in a broad spectrum of industrial and commercial projects.

Based in part on the feedback provided by installers and other end users, Renson has developed a wide range of options to meet a diversity of needs, **ranging from soundproofing to maximum water-repellency, and from visual screening to optimal ventilation**. After all, testing a product in practice remains the most valuable quality check!



### Insect protection

The continuous louvre system is fitted with wire mesh to keep out insects, pests and birds.



### Easy installation

Linius is the absolute market leader in its niche thanks to the ease and speed of installation offered by its convenient clip system. The seamless integration of doors and removable cassettes contribute to this ease of use.



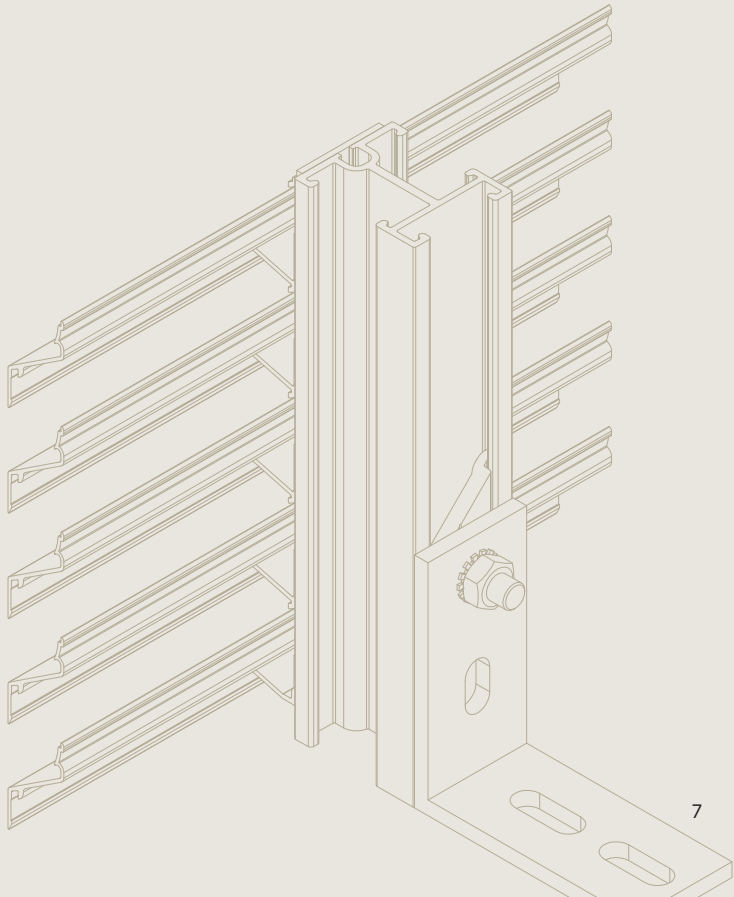
### Sustainability

The Linius continuous louvre system is made entirely of aluminium and therefore 100% recyclable. An Environmental Product Declaration (EPD) is available.



### Test certificates

BSRIA: Airflow and water-repellency  
IFT: Soundproofing  
TÜV: Stability – Clip strength  
VUB: Stability – Wind impact





# SUPPORT FROM A TO Z

We are here for you (and your team)! Looking for some training?  
Technical assistance or an intervention at the construction site?

SUPPORT

INTRO

*One phone call to the HOTLINE was enough to get my team back on track at the construction site. We promptly got the technical information we were looking for. Perfect service that saved a lot of time!*



## Hotline

Not sure which solution is the best answer? Struggling with a specific technical issue at the construction site? Contact one of our distribution partners or call a Renson helpdesk representative via the **HOTLINE** on +32 (0)56 30 30 30. If necessary, we will even send a Renson technician to your site. This will save you lots of time and give you a lot less to worry about!

## Renson Academy

The quality of a continuous louvre stands or falls with correct placement. Good product knowledge and technical skills will save you a lot of time. You (and your team) are welcome to join us for:

- An update of your product knowledge
- A refresher of your skills
- Learning new techniques

## ? PROJECT APPLICATIONS

Renson Projects offers various possibilities to realise a continuous louvre as an answer to your unique project, all in accordance with the applicable standards / Eurocodes.

## ! RENSON.NET

Your customers can find all the information they need about our products on our website. But that's not all: all the technical information you need, such as manuals, technical data sheets, ecolabels, brochures for your customers, specification sheets and much more, is also available online. If you are unable to find what you were looking for right away, contact us on +32 (0)56 30 30 00



# RENSON'S KEY STRENGTHS

At Renson, we believe high-quality products and innovative solutions contribute to energy-efficient, comfortable and healthy living and working environments. Our slogan 'Creating healthy spaces' reflects this mission, which we achieve by drawing on a number of fundamental principles.

## OUR FUNDAMENTAL PRINCIPLES



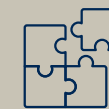
### MINIMALIST DESIGN

We set high standards when it comes to design. Renson solutions offer an architecturally sound solution for every type of building. Detailed finishing and seamless integration help achieve exactly that.



### THE POWER OF INNOVATION

Our hunger for innovation is what drives progress. We optimise our solutions by developing and applying innovative technologies.



### ENDLESS CUSTOMISATION OPTIONS

A high-quality functional building envelope can also offer visual added value. The countless possibilities in terms of colour, shape and finishing give each building the desired unique façade identity.



### SUSTAINABLE ENTREPRENEURSHIP

We cannot build a healthy living environment without tending to a healthy world. The recyclability of aluminium and the efficient production of our blades contribute to the sustainable properties of the building envelope.



### ULTIMATE INSTALLATION AND EASE OF MAINTENANCE

Our advanced engineering is geared towards ease of use and minimum maintenance. From configuration and ordering to quick and trouble-free installation.



# ONLINE PRODUCT SELECTOR

How to choose the right product?

DIGITAL  
TOOLS

INTRO

Find a suitable product for your project and consult all our available tools and documents, from drawings to calculators for airflow or sound calculation.



## Website [renson.net](https://www.renson.net)

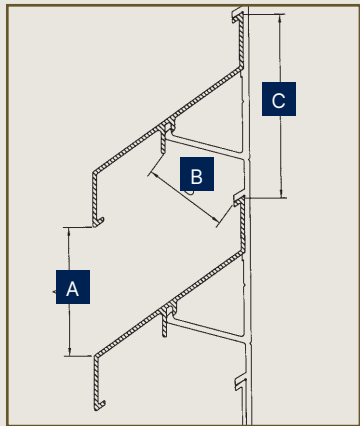
You will find an overview of all products with accompanying technical drawings, specification sheets and leaflets on the **renson.net** website.

On this website, you can quickly find the most suitable type for your application, thanks to the extensive searching, filtering and calculating possibilities. You can also download the results of your selection, contact one of our specialists for additional advice, or find a dealer in your area.



# SELECTION CRITERIA

This chapter helps you to select the most suitable Renson continuous louvre system. Some commonly used definitions in the field of natural ventilation are further explained here. In the case that the continuous louvre is used solely for aesthetic reasons, the theoretical values, calculated via the formulas below, can still create added value.



A. Visual distance between two blades  
B. Narrowest gap between two blades  
C. The blade pitch

## Geometric terms

**Visual free area (\*)** = the ratio of the visual distance between two blades (A) and the pitch in the blade (C).  $VFA = A/C$   
**Physical free area (\*)** = the ratio of the smallest opening between two blades (B) and the pitch in the blade (C). As a result of the edge effects and installation, a possible deviation of no more than 5% must be taken into account.  $FVD = B/C$

(\*) Calculations do not take into account top and/or bottom blades.  
All properties of the louvres can be calculated using the free software on the website: [www.rensonlouvres.eu](http://www.rensonlouvres.eu).

## Air technical terms

**K-value** = the value describing the aerodynamic resistance against the flow of air. In contrast to the free area, this value describes the ratio between the flow rate through the continuous louvre and the pressure drop across the system related to this.

**C<sub>e</sub>** = Entry loss coefficient = the value describing the aerodynamic conductivity of the airflow (when supplying air). This is the ratio of the effective airflow through a continuous louvre system compared to the theoretical airflow.

**C<sub>d</sub>** = Discharge loss coefficient = the value describing the aerodynamic conductivity of the airflow (when extracting air). This is the ratio of the effective airflow through a continuous louvre system compared to the theoretical airflow.  
The air technical terms are determined according to EN 13030.

Before determining the pressure drop, the air speed must be determined from the following equation:

Flow rate = m<sup>3</sup>/s  
Area = m<sup>2</sup>  
Air speed = m/s

The volume of air passing through the LWS  
The size of the LWS (front view)  
The speed of the approaching air at the front of the LWS. (This is the result of a certain volume passing through the LWS.)

Air speed =  $\frac{\text{AIRFLOW}}{\text{SURFACE AREA}}$  (a)

If two elements in this equation are known, the third can be calculated.

For determining dimensions, air speeds or pressure drop, the equations can be transposed.

Pressure drop =  $K \times 0.6 \times \text{Air speed}^2$  (b)

Relationship between K-value and c-coefficient:

$K = \frac{1}{C^2}$

blade type	blade pitch (mm)	Geometric determination		Aerodynamic determination					
		Physical free area (%)	Visual free area (%)	Air supply			Air extraction		
				Resistance factor K <sub>e</sub>	Flow coefficient C <sub>e</sub>	Airflow class	Resistance factor K <sub>d</sub>	Flow coefficient C <sub>d</sub>	Airflow class
L.033.01	33.3	50	59	18.9	0.230	3	19.8	0.225	3
L.033.08	33.3	26	56	123.5	0.090	4	118.1	0.092	4
L.033CL	33.3	0	59	N/A	N/A	N/A	N/A	N/A	N/A
L.033IM1	33.3	24	59	34.7	0.170	4	31.0	0.180	4
L.033V	33.3	43	59	61.0	0.128	4	61.0	0.128	4
L.050.00	50	49	70	12.1	0.287	3	12.1	0.287	3
L.050.25	50	33	50	15.7	0.252	3	16.3	0.247	3
L.050CL	50	0	70	N/A	N/A	N/A	N/A	N/A	N/A
L.050HF	50	60	70	8.2	0.349	2	9.8	0.319	2
L.050IM1	50	35	70	16.7	0.245	3	20.5	0.221	3
L.050IM2	50	46	70	13.3	0.274	3	13.9	0.268	3
L.050W	50	57	70	10.5*	0.309	2	16.5*	0.246	3
L.050WS	50	59	70	6.1	0.405	1	6.9	0.382	2
L.050WV	50	57	70	10.7*	0.306	2	16.5*	0.246	3
L.060AC	60	34	75	10.7	0.306	2	10.0	0.316	2
L.060HF	60	76	90	4.6	0.466	1	5.2	0.439	1
L.066.01	66	49	70	14.2	0.265	3	11.8	0.291	3
L.066.06	66	38	50	40.6	0.157	4	35.9	0.167	4
L.066CL	66	0	70	N/A	N/A	N/A	N/A	N/A	N/A
L.066IM1	66	32	70	16.7	0.245	3	Unavailable	Unavailable	Unavailable
L.066P	66	77	77	3.6	0.527	1	3.7	0.520	1
L.066S	66	49	70	13.6	0.271	3	14.6	0.262	3
L.066V	66	41	70	66.1	0.123	4	79.7	0.112	4
L.075HF	75	52	73	13.1	0.276	3	14.2	0.265	3
L.120.01	120	60	66	9.5	0.324	2	8.8	0.337	2
L.150ACL	150	34	54	37.3	0.164	4	41.9	0.154	4
L.150ACS	150	34	54	38.6*	0.161	4	35.0*	0.169	4
L.150DAC	150	34	54	47.7	0.145	4	42.5	0.153	4
L.170ACL	170	37	59	28.6	0.187	4	30.9	0.180	4
L.170ACS	170	37	59	25.4	0.198	4	25.1	0.200	4
L.170DAC	170	37	59	41.1	0.156	4	37.6	0.163	4

All values measured without mesh unless mentioned otherwise.  
\* Measured with stainless steel mesh 2.3 mm x 2.3 mm  
UN: Unavailable – N/A: Not applicable



Using the K-value method

**METHOD 1:**  
Determine the suitable blade type for a certain opening

1. Determine the desired flow rate
2. Determine the available opening (size of continuous louvre)
3. Determine the maximum allowable pressure drop
4. Choose the suitable louvre type based on the K-value

**Example of method 1**  
What type of louvre is suitable to achieve the desired ventilation volume of 55,000 m³/h with a maximum pressure drop of 25 Pa and an opening of 10 m²?

**Calculation:**  
Calculation formula (a)  
Flow rate = 55000 /3600 = 15.28 m³/s  
Dimensions of continuous louvre = 10 m²

Air speed = 15.28 m³/s /10 m²  
(surface area) = 1.53 m/s

Calculation formula (b)  
Pressure drop = 25 Pa  
Air speed = 1.53 m/s

K-value = 25 / (0.6 × 1.53²) = 17.80

This is the maximum K-value to achieve the desired volume at a certain pressure drop and size.  
“All blade types with K-value less than or equal to 17.80 can be applied here.”

**METHOD 2:**  
Determine the dimensions of the opening for a particular type of blade

1. Select the blade type:
2. Determine the air speed at the front of the louvre using the K-value and the maximum pressure drop
3. Determine the desired flow rate
4. Determine the minimum dimensions of the louvre

**Example of method 2**  
Blade type L.050.00 is preferred by the architect. What size is needed to have a maximum pressure drop of 30 Pa at a given flow rate of 10,000 m³/h?

**Calculation:**  
Calculation formula (b)  
K (L.050.00) = 12.10

Air speed =  $\sqrt{\frac{30}{0.6 \times 12.10}} = 2.03 \text{ m/s}$

Calculation formula (a)  
Flow rate = 10,000 /3,600 = 2.78 m³/s

Surface area =  $\frac{2.78 \text{ m}^3/\text{s}}{2.03 \text{ m/s}} = 1.37 \text{ m}^2$

This is the minimum required area of the continuous louvre system L.050.00 to achieve a pressure drop lower than 30 Pa at a flow rate of 10,000 m³/h.

SOUND TECHNICAL TERMS

- dB(a) = the decibel (dB) is expressed in this brochure as the reduction in the sound level to be determined for a continuous louvre system with acoustic properties. The A-weighting (dB(a)) takes the sensitivity of the human ear to pitches of sounds into account.
- D<sub>n,e,w</sub> = weighed normalised sound insulation of a single element like a continuous louvre system.
- Rw (C;C<sub>tr</sub>) = the weighted sound reduction index expresses the weighted difference (dB) between the indoor and outdoor sounds through a wall, which consists of a combination of various elements such as brick walls, glazing, wall louvres, etc.
- C = spectrum correction for pink noise (high frequencies), are added up for R<sub>w</sub> or D<sub>n,e,w</sub> when the noise source is speeding traffic, for example.
- C<sub>tr</sub> = spectrum correction (C<sub>traffic</sub>) for traffic noises (low frequencies), are added up for R<sub>w</sub> or D<sub>n,e,w</sub> when the noise source is city traffic, for example.
- Frequency = the pitch expressed in Hertz (Hz), number of vibrations per second.

Sound damping				
blade type	blade pitch (mm)	R <sub>w</sub>	C	C <sub>tr</sub>
L.060AC	60	6	-1	-2
L.150ACL	150	15	-1	-4
L.150ACS	150	11	-1	-2
L.170ACL	170	13	-1	-3
L.170ACS	170	9	0	-1



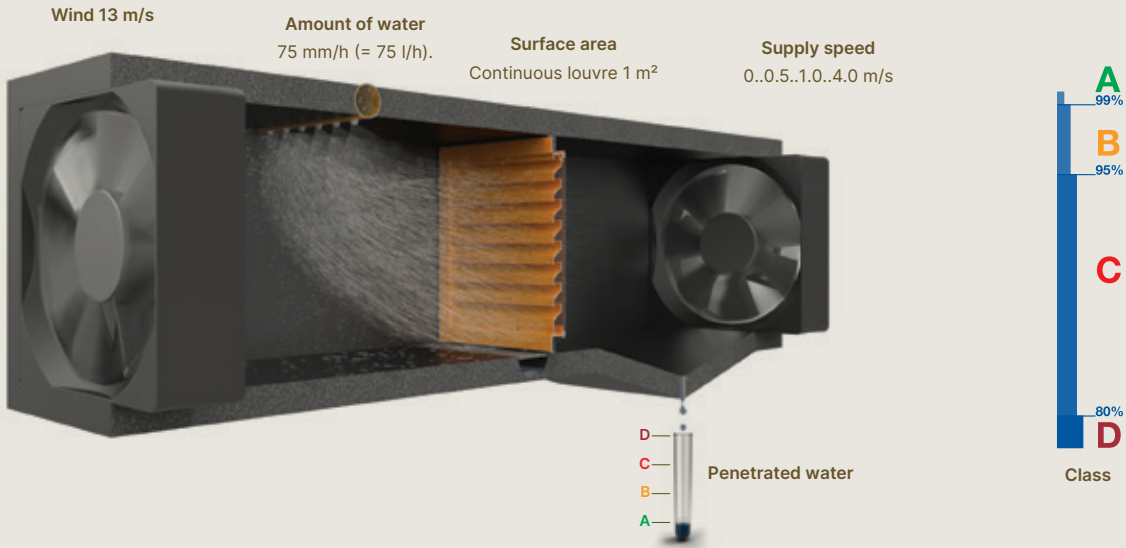


# RAIN-REPELLENCY

## The principle

The Renson continuous louvre systems were tested by BSRIA, the Building Services Research and Information Association, according to EN 13030:2001. During this test, a continuous louvre system of 1m<sup>2</sup>, is tested with a driving rain capacity of 75 litres/hour and a wind speed of 13 m. Based on the results achieved, i.e. the amount of water that has penetrated behind the continuous louvre system, a rating is assigned.

The rating is determined at different supply speeds, ranging from 0 to a maximum of 4 m/s. At higher speeds, the chance of water being sucked in is greater, and the rating is usually lower.



				Water-repellency																																	
				with mesh and sill																with mesh and sill				without sill													
				0.0 m/s		0.5 m/s		1.0 m/s		1.5 m/s		2.0 m/s		2.5 m/s		3.0 m/s				3.5 m/s		0.0 m/s		0.5 m/s		1.0 m/s		1.5 m/s		2.0 m/s		2.5 m/s		3.0 m/s		3.5 m/s	
blade type	blade pitch (mm)	mesh type	sill	Class	%	Class	%	Class	%	Class	%	Class	%	Class	%		Class	%	Class	%	Class	%	Class	%	Class	%	Class	%	Class	%	Class	%	Class	%			
L.033.01	33.3	2×2	✓	A	99.5	A	99.0	B	96.5	D	78.9	D	41.9	D	23.6		D	15.2	D	10.4	B	95.3	C	91.0	C	80.5	D	46.6	D	22.0	D	7.4	D	7.3	D	7.5	
L.033.08	33.3	6×6	✓	A	100.0	A	99.7	C	91.6	D	50.1	D	16.9	D	14.7		D	15.4			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
L.033IM1	33.3	N/A	N/A	Unavail-able	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
L.033V	33.3	6×6	✓	A	99.9	A	99.5	B	96.9	C	87.9	D	62.2	D	22.0		D	18.1			A	99.3	B	98.1	C	93.4	C	87.5	D	60.0	D	25.0	D	17.9			
L.050.00	50	2×2	✓	B	95.0	C	92.2	C	89.8	C	84.5	D	72.6	D	56.7		D	44.4	D	33.7	C	91.4	C	86.2	D	78.9	D	65.8	D	45.3	D	26.4	D	13.7	D	1.8	
L.050.25	50	Unavailable			-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
L.050HF	50	2×2	✓	B	96.0	C	94.3	C	92.2	C	88.2	D	76.9	D	57.3		D	42.4	D	33.0	C	90.6	C	86.4	C	80.8	D	72.0	D	51.4	D	31.8	D	22.0	D	13.7	
L.050IM1	50	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	C	91.5	C	86.9	C	83.2	D	79.3	D	69.1	D	45.6	D	33.7	D	17.5	
L.050IM2	50	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	C	86.6	C	80.8	D	77.6	D	73.6	D	64.0	D	48.4	D	36.2	D	21.9	
L.050W	50	2×2	✓	A	100.0	A	100.0	A	100.0	A	100.0	A	99.9	A	99.9		A	99.2	C	92.2	A	99.5	A	99.4	A	99.7	A	99.8	A	99.8	A	99.2	B	96.6	C	79.1	
L.050WS	50	Unavailable			-	-	-	-	-	-	-	-	-	-	-		-	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
L.050WV	50	2×2	✓	A	100.0	A	99.9	A	99.9	A	99.9	A	99.5	A	99.6		A	99.7	A	99.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
L.060AC	60	2×2	✓	B	98.0	B	95.2	C	89.9	D	76.7	D	47.6	D	20.0		D	15.4	D	8.3	C	83.3	D	73.5	D	63.2	D	50.6	D	37.6	D	28.5	D	23.5	D	20.2	
L.060HF	60	2×2	✓	C	90.1	C	87.3	C	84.2	C	80.1	D	73.4	D	62.0		-	-			D	75.9	D	68.9	D	62.8	D	56.9	D	51.7	D	45.5	D	39.4	D	30.4	
L.066.01	66	6×6	✓	B	95.5	C	92.9	C	90.8	C	82.8	D	73.6	-	-		-	-																			
L.066.06	66	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	B	96.7	C	94.0	C	91.2	D	64.7	D	10.9	D	8.9	D	8.2	D	9.4	
L.066IM1	66	N/A	N/A	Unavail-able	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
L.066V	66	6×6	✓	A	100.0	A	99.9	A	99.6	B	95.0	D	56.9	D	28.3		D	11.6			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
L.075HF	75	2×2	✓	B	96.9	B	95.2	C	93.7	C	89.2	D	79.9	D	66.5		D	48.5	D	36.0	C	90.4	C	87.3	C	84.8	C	81.3	D	73.9	D	54.9	D	37.7	D	15.5	
L.120.01	120	2×2	✓	B	97.1	B	95.3	C	93.3	C	91.5	C	88.5	C	80.5		D	66.7	D	56.2	C	93.6	C	91.8	C	89.9	C	87.7	C	81.2	D	68.4	D	55.9	D	47.2	
L.150ACL	150	Unavailable			-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
L.150ACS	150	2×2	✓	A	99.3	B	96.6	C	91.3	D	78.1	D	48.3	D	35.8		D	28.9			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
L.150DAC	150	Unavailable			-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
L.170ACL	170	Unavailable			-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
L.170ACS	170	Unavailable			-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
L.170DAC	170	Unavailable			-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

UN: Unavailable  
N/A: Not applicable

# BLADES OVERVIEW



L.066P  
Planolamel



L.033.01  
Standard blade



L.033CL  
Sealing blade



L.033IM1  
Blade with integrated insect protection



L.033V  
V-blade



L.033.08  
Storm blade



L.050HF  
Blade with good airflow



L.050WS  
Blade can be combined with high-performance system L.050W



L.050.00  
Standard blade



L.060HF  
Blade with good airflow



L.050IM1  
Blade with integrated insect protection



L.050IM2  
Blade with integrated insect protection



L.050CL  
Sealing blade



L.060AC  
Acoustic blade



L.066.06  
blade with lengthened nose section



L.066V  
V-blade



L.066.01  
Standard blade



L.050W/L.050WV  
High-performance blade

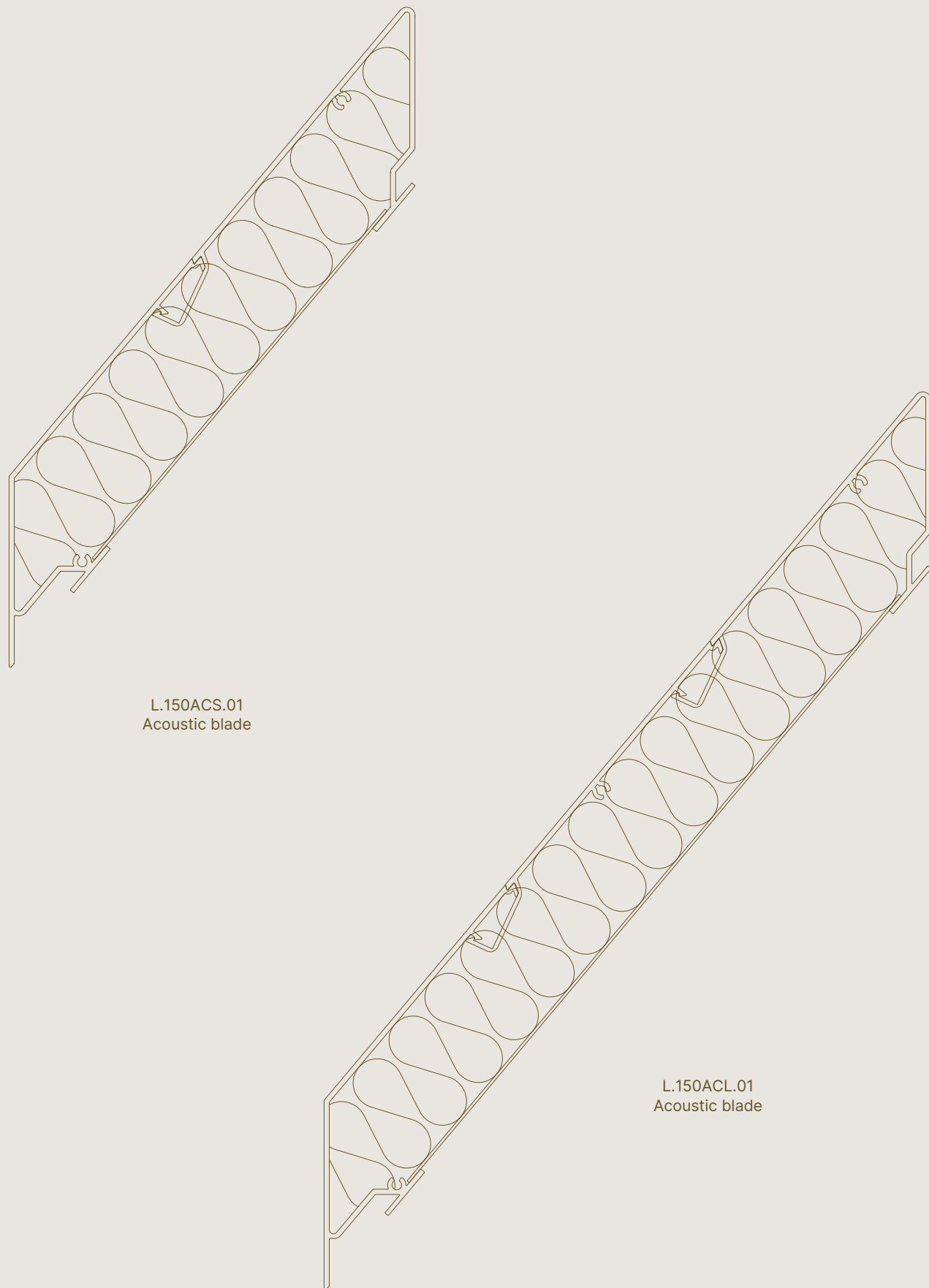


L.120.01  
Standard blade with large span and good airflow

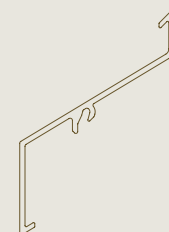


L.150.DAC.01  
Blade can be combined with acoustic system





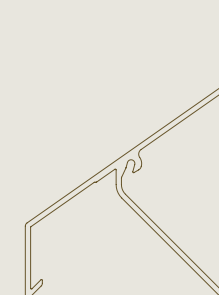
#### Project blades\*



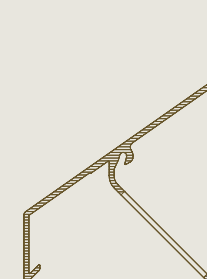
Ref. L.050.25  
Blade with  
lengthened nose section



Ref. L.066S  
Blade with  
rounded nose section



Ref. L.066CL  
Sealing blade



Ref. L.066 IM1  
Blade with integrated  
insect protection

\* Project profiles available upon request

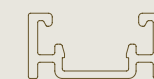
#### Linus® support structures



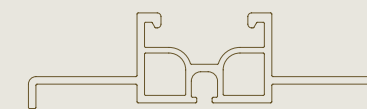
Ref. LD.0065  
For linear  
mounting



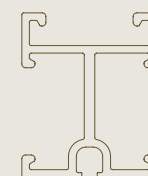
Ref. LD.0070  
For linear  
mounting



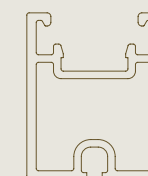
Ref. LD.0195  
Limited free  
span



Ref. LD.0240  
For sideways mounting of  
mesh wire



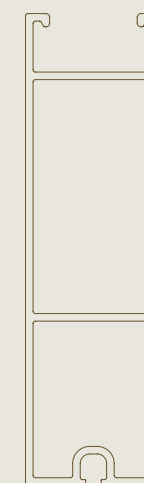
Ref. LD.0440  
For constructions and  
sideways mounting



Ref. LD.0460  
Average free span



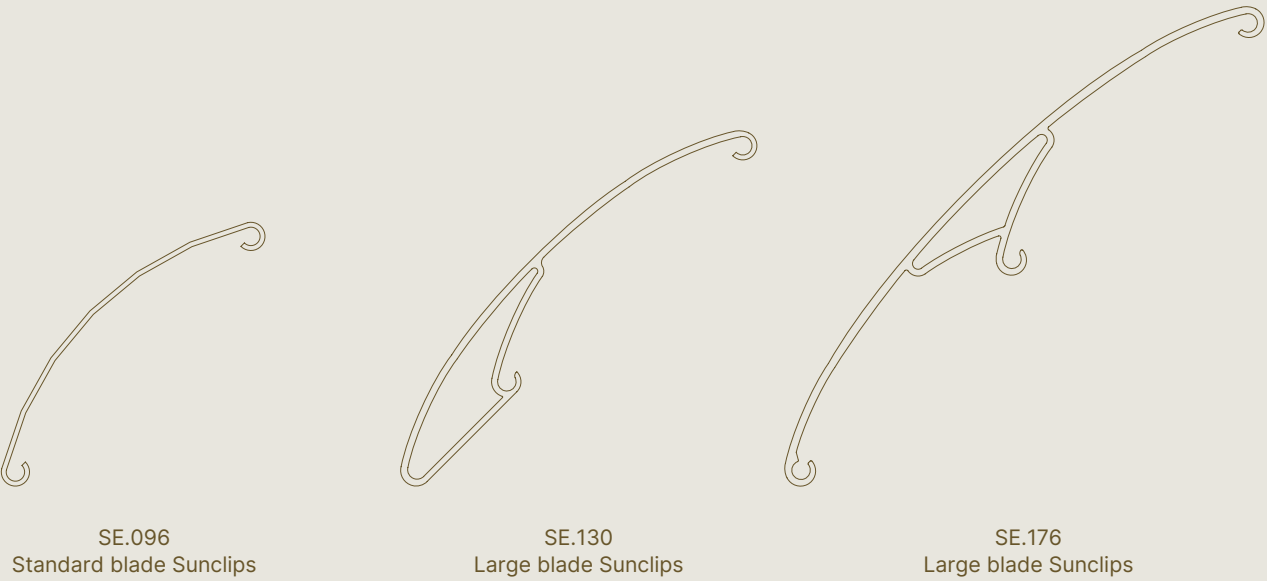
Ref. LD.0995  
Large free  
span



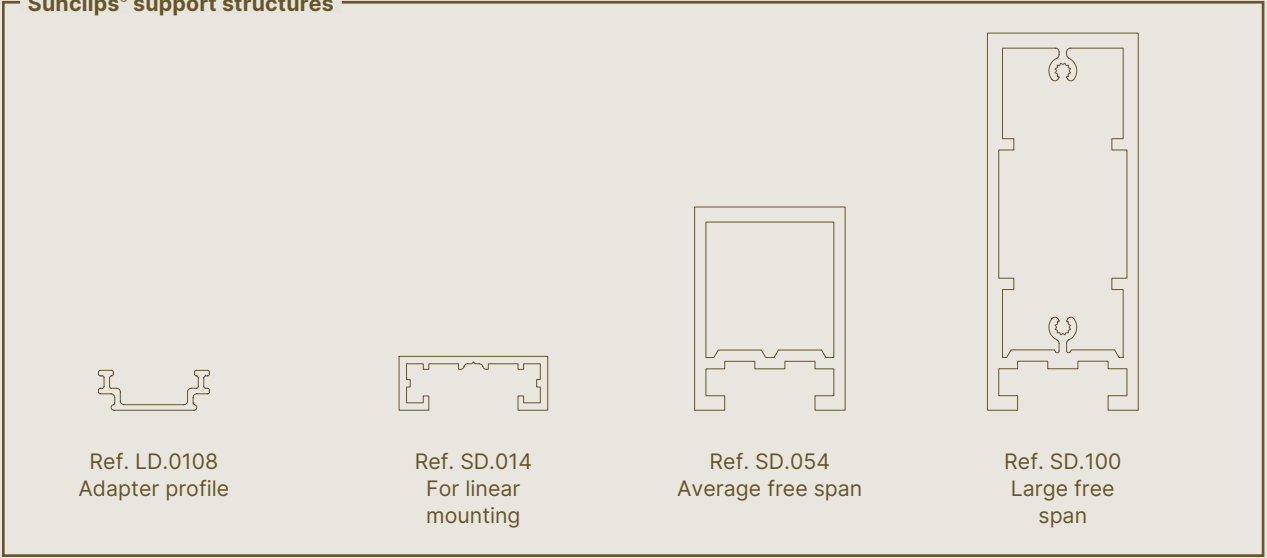
Ref. LD.1250  
For extra large free  
spans



Aesthetic blades for façade cladding/sun protection



Sunclips® support structures





# L.033.01

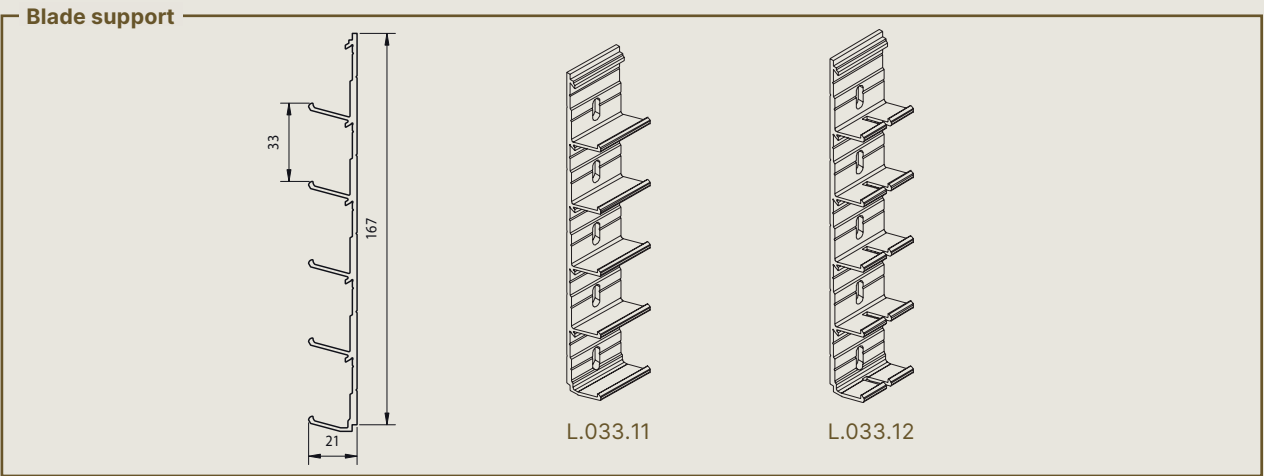
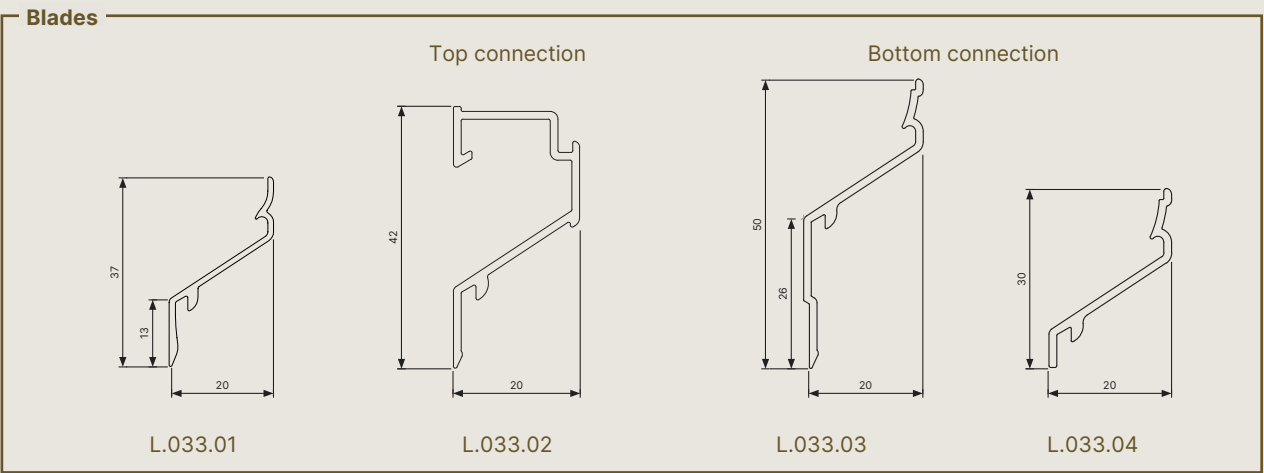
Continuous louvre with a blade pitch of 33.3 mm for a detailed optical line play with optimal combination of airflow and rain resistance.



Class A  
0,5 m/s  
With sill

Technical properties	
Material	Aluminium extrusion, alloy EN AW-6063 T66
Surface treatment	Anodisation F1 (20 micron) or Polyester powder coating (60-80 micron) in RAL colours
Options	
Mesh	Rear of the supporting structure
Top connection	L.033.02
Bottom connection	L.033.03 (long bottom blade) / L.033.04 (short bottom blade)
Curved	Minimum radius of 800 mm (see page 87)
Doors	Single and double doors available (see page 80)
Blade support	
Single	L.033.11 (width 30 mm)
Double (thermal expansion)	L.033.12 connection piece for 2 blades (width 34 mm)

Technical details		L.033.01	
Blade pitch		33.3 mm	
Blade depth		20 mm	
Blade height		37 mm	
Physical free area		50%	
Visual free area		59%	
Maximum span between 2 mullions at wind pressure qp = 800 Pa		829 mm	
Resistance factor K		Air supply	Air extraction
Resistance factor K <sub>e</sub>		18.9	19.8
Flow coefficient C <sub>e</sub>		0.230	0.225
Airflow class		3	3
Water-repellency		With mesh 2×2 and sill	Without sill
At 0.0 m/s		A - 99.5%	B - 95.3%
At 0.5 m/s		A - 99.0%	C - 91.0%
At 1.0 m/s		B - 96.5%	C - 80.5%
At 1.5 m/s		D - 78.9%	D - 46.6%
At 2.0 m/s		D - 41.9%	D - 22.0%
At 2.5 m/s		D - 23.6%	D - 7.4%
At 3.0 m/s		D - 15.2%	D - 7.3%
At 3.5 m/s		D - 10.4%	D - 7.5%



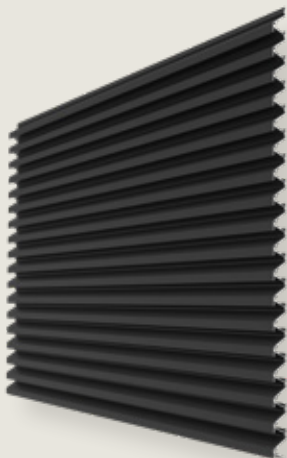
# L.033CL / L.033IM1

### L.033 CL

Sealing blade, used for completely or partially closed continuous louvre system or if no view-through is desired.

### L.033IM1

Blade with integrated insect mesh, resulting in significant time savings during assembly. The L.066IM1 can be combined perfectly with the standard blade L.033.01 and the finishing blade L.033CL.



L.033CL



L.033IM1

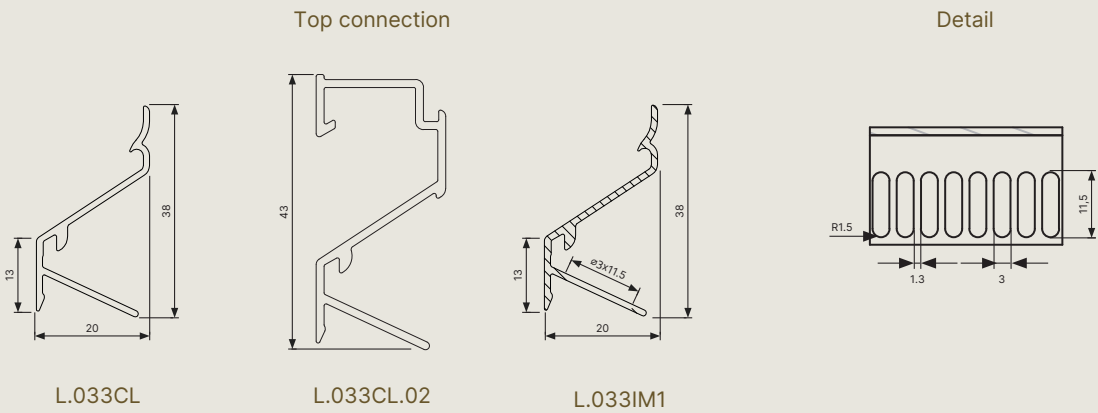


2x  
FASTER  
INSTALLATION

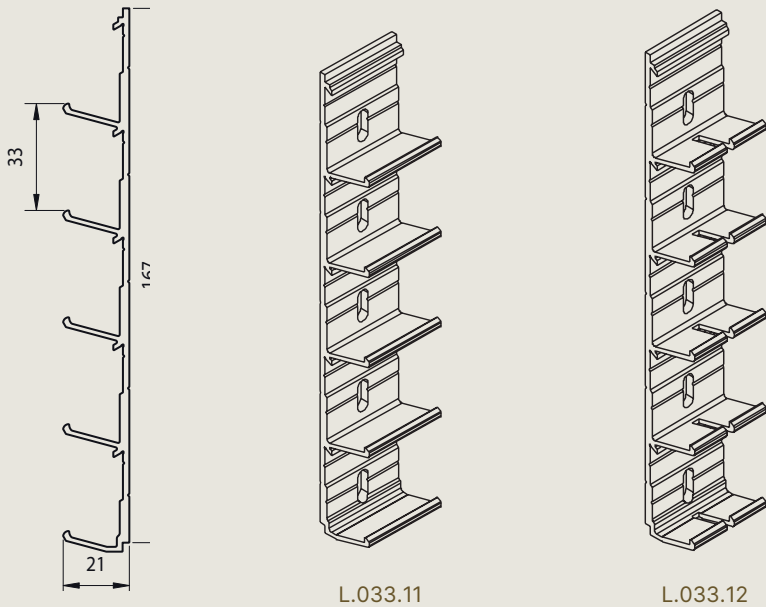
Technical properties	
Material	Aluminium extrusion, alloy EN AW-6063 T66
Surface treatment	Anodisation F1 (20 micron) or Polyester powder coating (60-80 micron) in RAL colours
Options	
Top connection	L.033CL.02
Doors	Single and double doors available (see page 80)
Blade support	
Single	L.033.11 (width 30 mm)
Double (thermal expansion)	L.033.12 connection piece for 2 blades (width 34 mm)

Technical details		L.033CL	L.033IM1	
Blade pitch		33.3 mm	33.3 mm	
Blade depth		20 mm	20 mm	
Blade height		38 mm	38 mm	
Physical free area		0%	24%	
Visual free area		59%	59%	
Maximum span between 2 mul- lions at wind pressure qp = 800 Pa		925 mm	890 mm	
Resistance factor K	Air supply	Air extraction	Air supply	Air extraction
Resistance factor K <sub>e</sub>	-	-	34.7	31.0
Flow coefficient C <sub>e</sub>	-	-	0.170	0.180
Airflow class	-	-	4	4

#### Blades



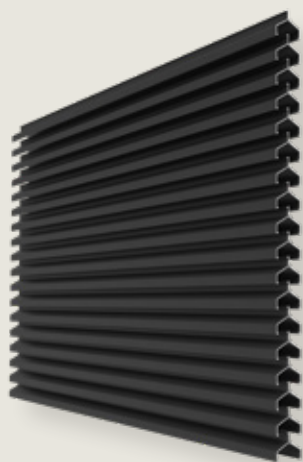
#### Blade support



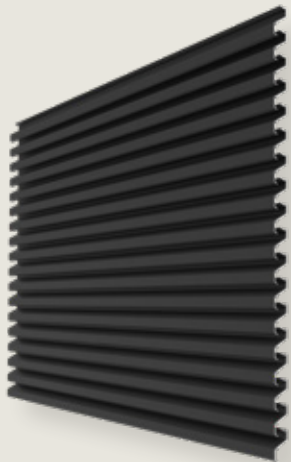


# L.033V / L.033.08

Blade for ‘high-risk’ applications, such as high-voltage cabinets, which require penetration safety. The blade also provides the necessary visual screening to offer complete privacy. L.033V can be used together with blade L.033.01 thanks to its identical appearance



L.033V



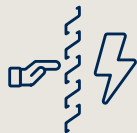
L.033.08

Class A



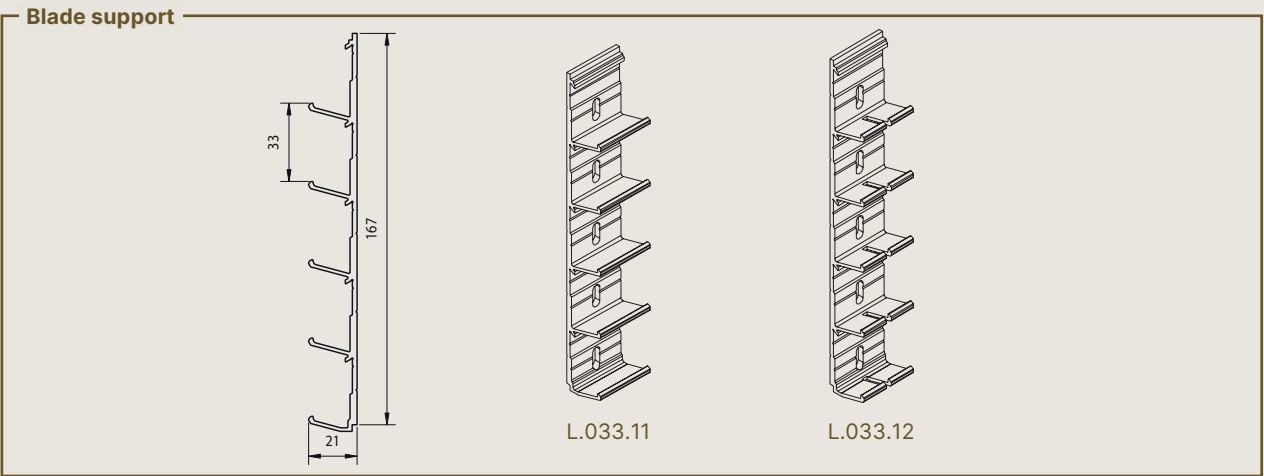
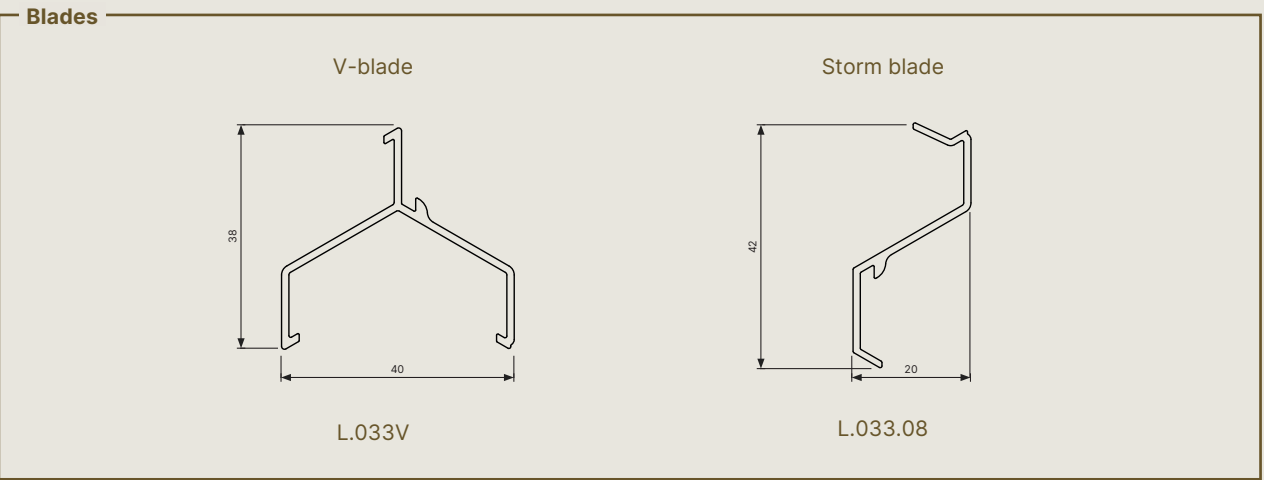
0,5 m/s

With sill



Technical properties	
Material	Aluminium extrusion, alloy EN AW-6063 T66
Surface treatment	Anodisation F1 (20 micron) or Polyester powder coating (60-80 micron) in RAL colours
Options	
Doors	Single and double doors available (see page 80)
Blade support	
Single	L.033.11 (width 30 mm)
Double (thermal expansion)	L.033.12 connection piece for 2 blades (width 34 mm)

Technical details		L.033V	L.033.08	
Blade pitch		33.3 mm	33.3 mm	
Blade depth		40 mm	20 mm	
Blade height		38 mm	42 mm	
Physical free area		43%	26%	
Visual free area		59%	56%	
Maximum span between 2 mul- lions at wind pressure qp = 800 Pa		818 mm	949 mm	
Resistance factor K	Air supply	Air extraction	Air supply	Air extraction
Resistance factor K <sub>e</sub>	61.0	61.0	123.5	118.1
Flow coefficient C <sub>e</sub>	0.128	0.128	0.090	0.092
Airflow class	4	4	4	4
Water-repellency	With mesh 6×6 and sill	Without sill	With mesh 6×6 and sill	Without sill
At 0.0 m/s	A - 99.9%	A - 99.3%	A - 100.0%	-
At 0.5 m/s	A - 99.5%	B - 98.1%	A - 99.7%	-
At 1.0 m/s	B - 96.9%	C - 93.4%	C - 91.6%	-
At 1.5 m/s	C - 87.9%	C - 87.5%	D - 50.1%	-
At 2.0 m/s	D - 62.2%	D - 60.0%	D - 16.9%	-
At 2.5 m/s	D - 22.0%	D - 25.0%	D - 14.7%	-
At 3.0 m/s	D - 18.1%	D - 17.9%	D - 15.4%	-



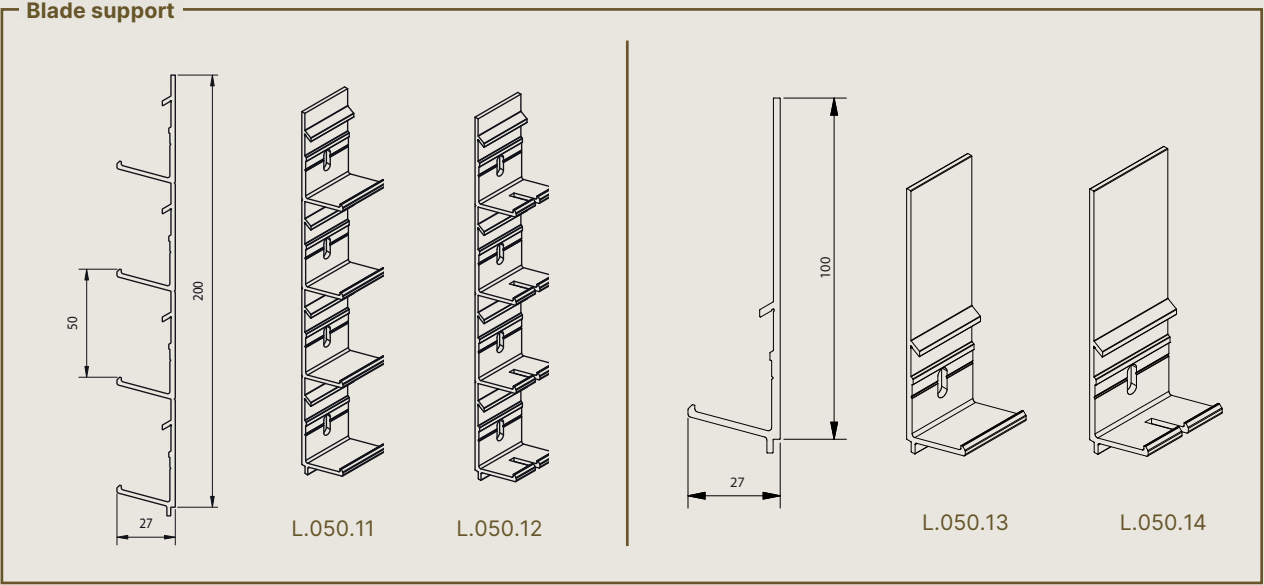
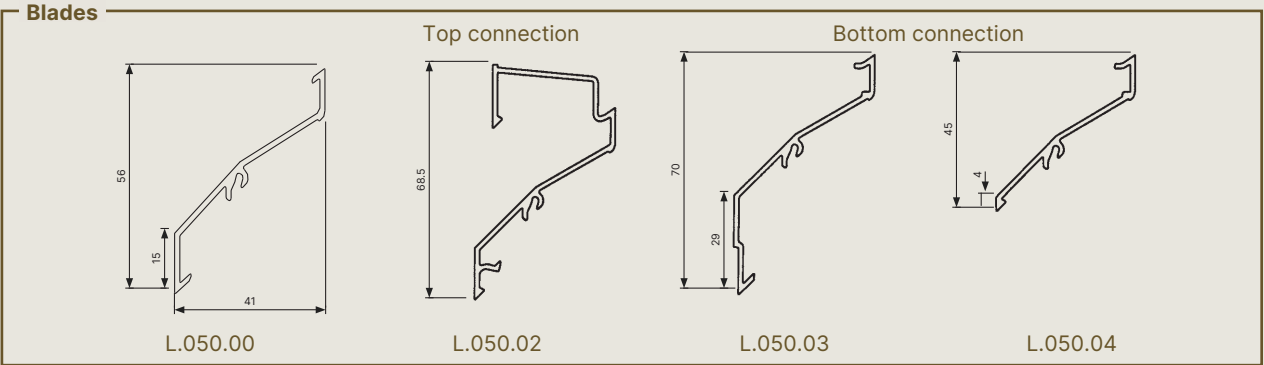
# L.050.00

Extruded aluminium profile, with good airflow and a standard pitch of 50 mm. Variable pitches between 50 to 100 mm are possible with blade holder types L.050.13 and L.050.14.



Technical properties		
Material	Aluminium extrusion, alloy EN AW-6063 T66	
Surface treatment	Anodisation F1 (20 micron) or Polyester powder coating (60-80 micron) in RAL colours	
Options		
Mesh	Rear of the supporting structure or in combination with blade L.050IM1 or L.050IM2	
Optimum finishing	L.050.03 (long bottom blade) / L.050.04 (short bottom blade)	
Top connection	L.050.02	
Curved	Minimum radius of 800 mm (see page 87)	
Doors	Single and double doors available (see page 80) or L.050IM2	
Blade support	50 mm pitch	Pitches 50 - 100 mm
Single	L.050.11 (width 28 mm)	L.050.13 (width 28 mm)
Double (thermal expansion)	L.050.12 connection piece for 2 blades (width 34 mm)	L.050.14 connection piece for 2 blades (width 34 mm)

Technical details		L.050.00
Blade pitch		50 mm
Blade depth		41 mm
Blade height		56 mm
Physical free area		49%
Visual free area		70%
Maximum span between 2 mullions at wind pressure qp = 800 Pa		1.223 mm
Resistance factor K		
		Air supply
Resistance factor K <sub>e</sub>		8.2
Flow coefficient C <sub>e</sub>		0.349
Airflow class		2
		Air extraction
		9.8
		0.319
		2
Water-repellency		
		With mesh 2×2 and sill
		Without sill
At 0.0 m/s		B - 95.0%
At 0.5 m/s		B - 92.2%
At 1.0 m/s		C - 89.8%
At 1.5 m/s		C - 84.5%
At 2.0 m/s		D - 72.6%
At 2.5 m/s		D - 56.7%
At 3.0 m/s		D - 44.4%
At 3.5 m/s		D - 33.7%
		C - 91.4%
		C - 86.2%
		D - 78.9%
		D - 65.8%
		D - 45.3%
		D - 26.4%
		D - 13.7%
		D - 1.8%





# L.050HF / L.050.25

## L.050 HF

Blade with a high airflow and a 50 mm pitch. Variable pitches between 50 to 100 mm are possible with blade holder types L.050.13 and L.050.14. Often applied in cases where the pitch between the blades reflects the aesthetics of the overall project.

## L.050 25

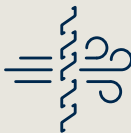
Blade with adjusted visual rhythm open/close = 25mm/25mm.  
Not in stock - only available upon request.



L.050HF

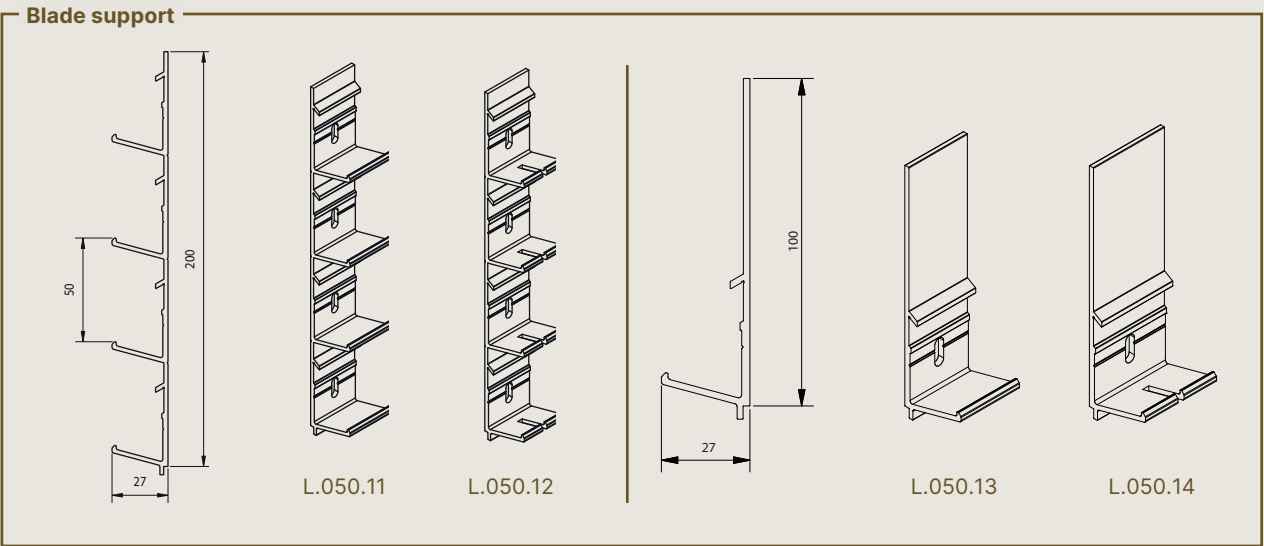
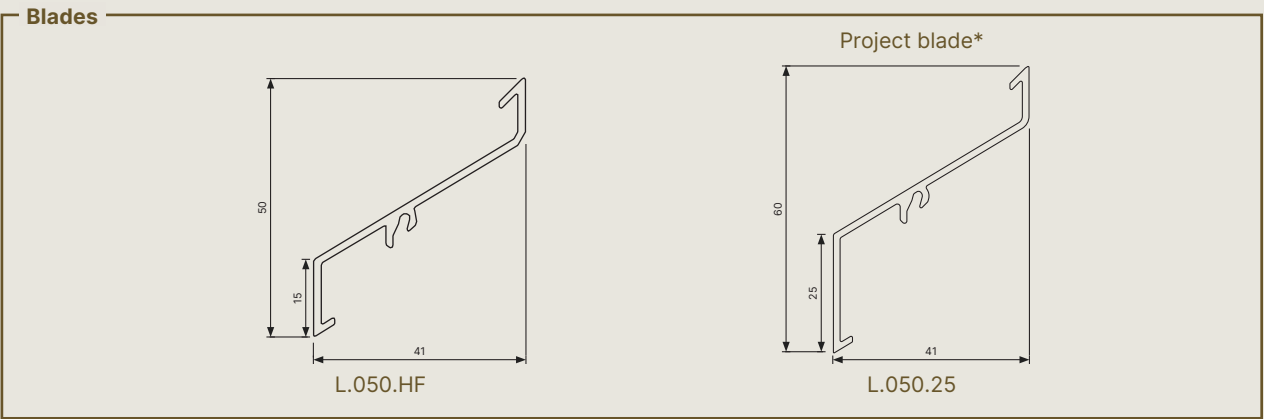


L.050.25



Technical properties		
Material	Aluminium extrusion, alloy EN AW-6063 T66	
Surface treatment	Anodisation F1 (20 micron) or Polyester powder coating (60-80 micron) in RAL colours	
Options		
Mesh	Attached to the rear of the supporting structure.	
Curved	Minimum radius of 800 mm (see page 87)	
Doors	Single and double doors available (see page 80)	
Blade support	50 mm pitch	Pitches 50 - 100 mm
Single	L.050.11 (width 28 mm)	L.050.13 (width 28 mm)
Double (thermal expansion)	L.050.12 connection piece for 2 blades (width 34 mm)	L.050.14 connection piece for 2 blades (width 34 mm)

Technical details	L.050HF		L.050.25	
Blade pitch	50 mm		50 mm	
Blade depth	41 mm		41 mm	
Blade height	50 mm		60 mm	
Physical free area	60%		33%	
Visual free area	70%		50%	
Maximum span between 2 mullions at wind pressure qp = 800 Pa	1.043 mm		1.312 mm	
Resistance factor K	Air supply	Air extraction	Air supply	Air extraction
Resistance factor K <sub>e</sub>	8.2	9.8	15.7	16.3
Flow coefficient C <sub>e</sub>	0.349	0.319	0.252	0.247
Airflow class	2	2	3	3
Water-repellency	With mesh 2×2 and sill	Without sill	With mesh 2×2 and sill	Without sill
At 0.0 m/s	B - 96.0%	C - 90.6%	-	-
At 0.5 m/s	C - 94.3%	C - 86.4%	-	-
At 1.0 m/s	C - 92.2%	C - 80.8%	-	-
At 1.5 m/s	C - 88.2%	D - 72.0%	-	-
At 2.0 m/s	D - 76.9%	D - 51.4%	-	-
At 2.5 m/s	D - 57.3%	D - 31.8%	-	-
At 3.0 m/s	D - 42.4%	D - 22.0%	-	-
At 3.5 m/s	D - 33.0%	D - 13.7%	-	-

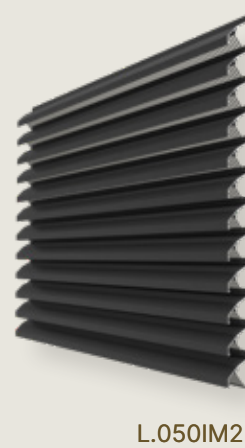
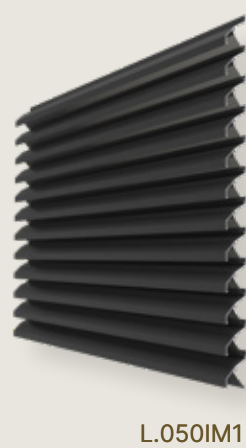
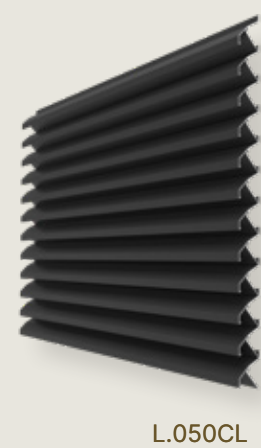


\* Project profiles not in stock. Extrusions upon request.

# L.050CL / L.050IM1 / L.050IM2

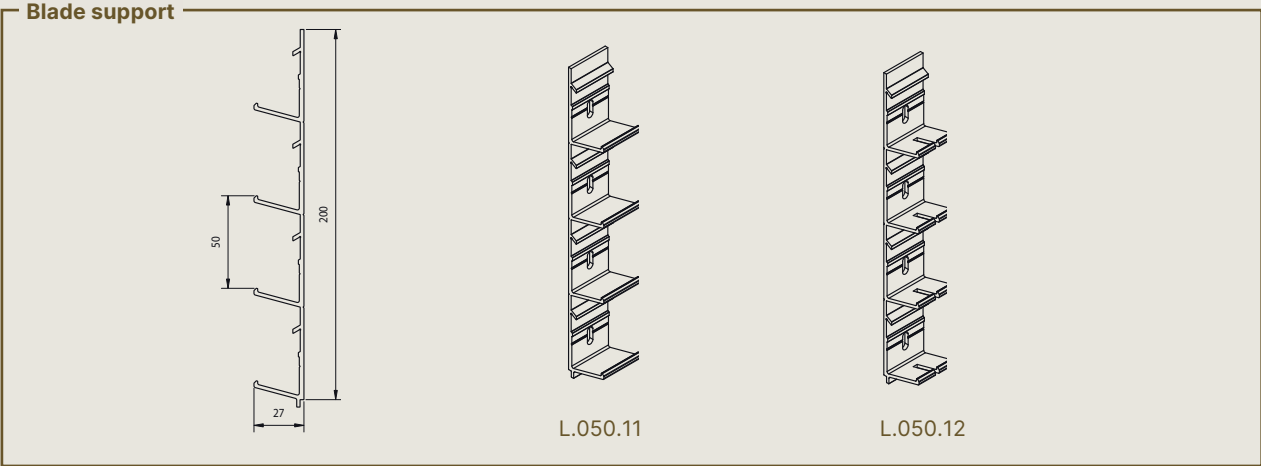
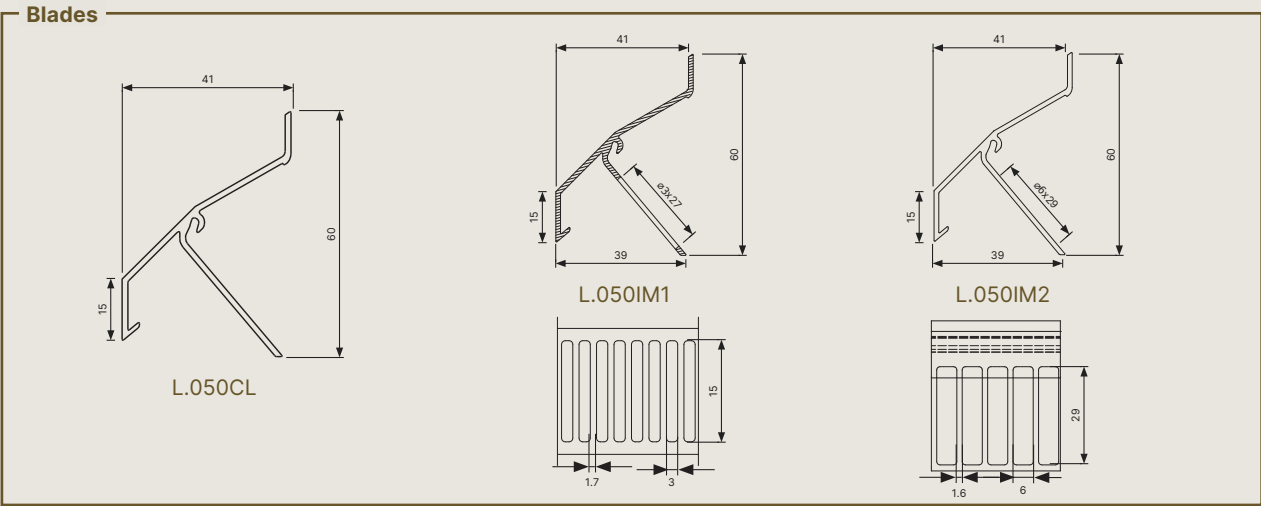
**L.050CL**  
Sealing blade, used for completely or partially closed continuous louvre system or if no view-through is desired.

**L.050IM1 / L.050IM2**  
Blade with integrated insect mesh (L.050IM1) or integrated bird mesh (L.050IM2), resulting in significant time savings during assembly. The blade L.050IM1/L.050IM2 can be combined perfectly with standard blade L.050.00 and finishing blade L.050CL.



Technical properties	
Material	Aluminium extrusion, alloy EN AW-6063 T66
Surface treatment	Anodisation F1 (20 micron) or Polyester powder coating (60-80 micron) in RAL colours
Options	
Doors	Single and double doors available (see page 80)
Blade support	
Single	L.050.11 (width 28 mm)
Double (thermal expansion)	L.050.12 (width 34 mm) connection piece for 2 blades

Technical details		L.050CL		L.050IM1		L.050IM2	
Blade pitch		50 mm		50 mm		50 mm	
Blade depth		41 mm		41 mm		41 mm	
Blade height		60 mm		60 mm		60 mm	
Physical free area		0%		35%		46%	
Visual free area		70%		70%		70%	
Maximum span between 2 mullions at wind pressure qp = 800 Pa		1300 mm		1.205 mm		1.186 mm	
Resistance factor K		Air supply	Air extraction	Air supply	Air extraction	Air supply	Air extraction
Resistance factor K <sub>e</sub>		-	-	16.7	20.5	13.3	13.9
Flow coefficient C <sub>e</sub>		-	-	0.245	0.221	0.274	0.268
Airflow class		-	-	3	3	3	3
Water-repellency		Without sill		Without sill		Without sill	
At 0.0 m/s		-		C - 91.5%		C - 86.6%	
At 0.5 m/s		-		C - 86.9%		C - 80.8%	
At 1.0 m/s		-		C - 83.2%		D - 77.6%	
At 1.5 m/s		-		D - 79.3%		D - 73.6%	
At 2.0 m/s		-		D - 69.1%		D - 64.0%	
At 2.5 m/s		-		D - 45.6%		D - 48.4%	
At 3.0 m/s		-		D - 33.7%		D - 36.2%	
At 3.5 m/s		-		D - 17.5%		D - 21.9%	





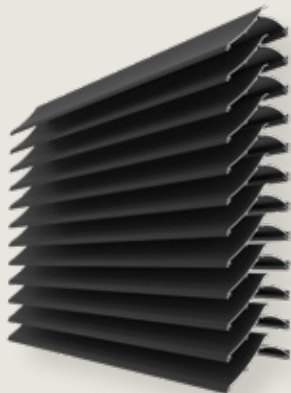
# L.050W / L.050WS / L.050WV

## L.050W

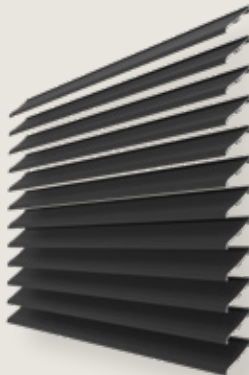
The patented L.050W blade is water-repellent and tested according to EN13030:2001 class A2 to 3.0 m/s, (variant L.050WV: class A2 to 4.0 m/s). This system also offers excellent airflow a good physical free area and a large free span of the blade between two supporting profiles. The L.050W system can optionally be fitted with frame profile L.050W.23.

## L.050WS

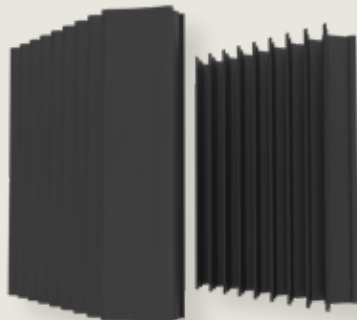
This blade can be combined with the high-performing water-repellent blade L.050W in places in the façade where repelling water is not as required.



L.050W



L.050WS



L.050WV

Class A



0,5 m/s

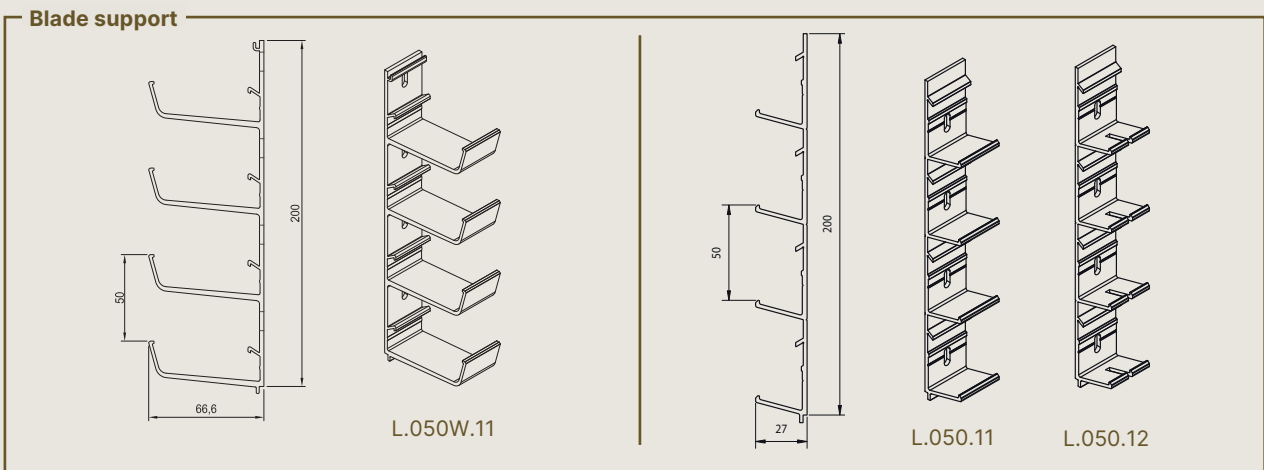
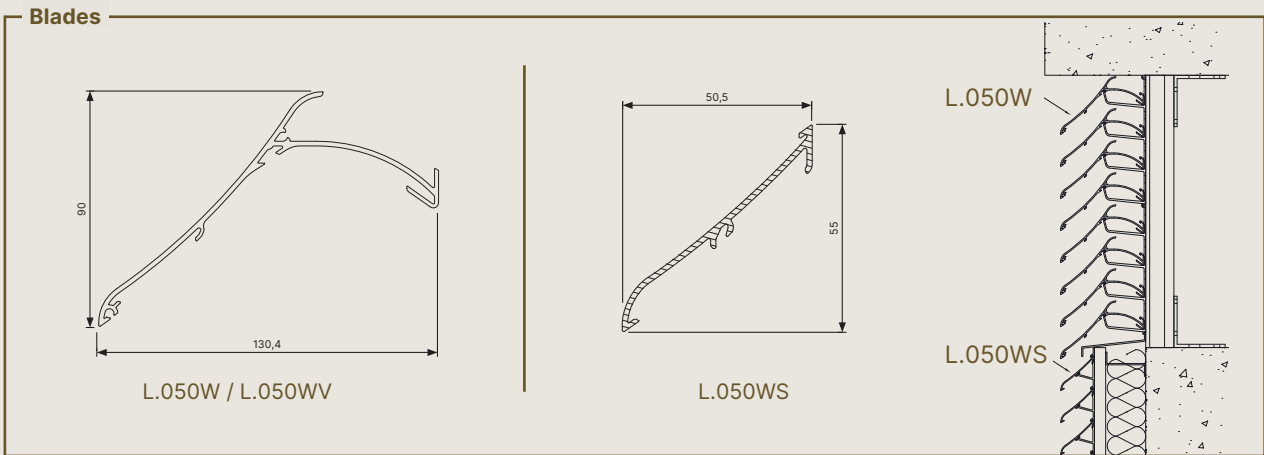
With sill



Technical properties		
Material	Aluminium extrusion, alloy EN AW-6063 T66	
Surface treatment	Anodisation F1 (20 micron) or Polyester powder coating (60-80 micron) in RAL colours	
Options		
Mesh	Attached to the rear of the supporting structure.	
Blade support	Blade L.050W	Blade L.050WS
Single	L.050W.11 (width 34 mm)	L.050.11 (width 28 mm)
Double (thermal expansion)	-	L.050.12 connection piece for 2 blades (width 34 mm)

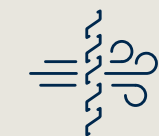
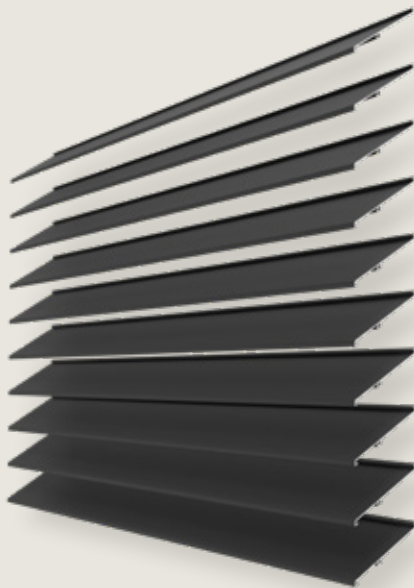
Technical details	L.050W		L.050WS		L.050WV	
Blade pitch	50 mm		50 mm		50 mm	
Blade depth	130 mm		50 mm		130 mm	
Blade height	90 mm		55 mm		90 mm	
Physical free area	57%		59%		57%	
Visual free area	70%		70%		70%	
Maximum span between 2 mullions at wind pressure qp = 800 Pa	1.318 mm		663 mm		1.318 mm	
Resistance factor K	Air supply	Air extraction	Air supply	Air extraction	Air supply	Air extraction
Resistance factor K <sub>e</sub>	10.5*	16.5*	6.1	6.9	10.7*	16.5*
Flow coefficient C <sub>e</sub>	0.309	0.246	0.405	0.382	0.306	0.246
Airflow class	2	3	1	2	2	3
Water-repellency	With mesh 2×2 and sill	Without sill			With mesh 2×2 and sill	
At 0.0 m/s	A - 100.0%	A - 99.5%	-		A - 100.0%	
At 0.5 m/s	A - 100.0%	A - 99.4%	-		A - 99.9%	
At 1.0 m/s	A - 100.0%	A - 99.7%	-		A - 99.9%	
At 1.5 m/s	A - 100.0%	A - 99.8%	-		A - 99.9%	
At 2.0 m/s	A - 99.9%	A - 99.8%	-		A - 99.5%	
At 2.5 m/s	A - 99.9%	A - 99.2%	-		A - 99.6%	
At 3.0 m/s	A - 99.2%	B - 96.6%	-		A - 99.7%	
At 3.5 m/s	C - 92.9%	C - 79.1%	-		A - 99.5%	

\*Measured on louvre with mesh 2.3 mm x 2.3 mm



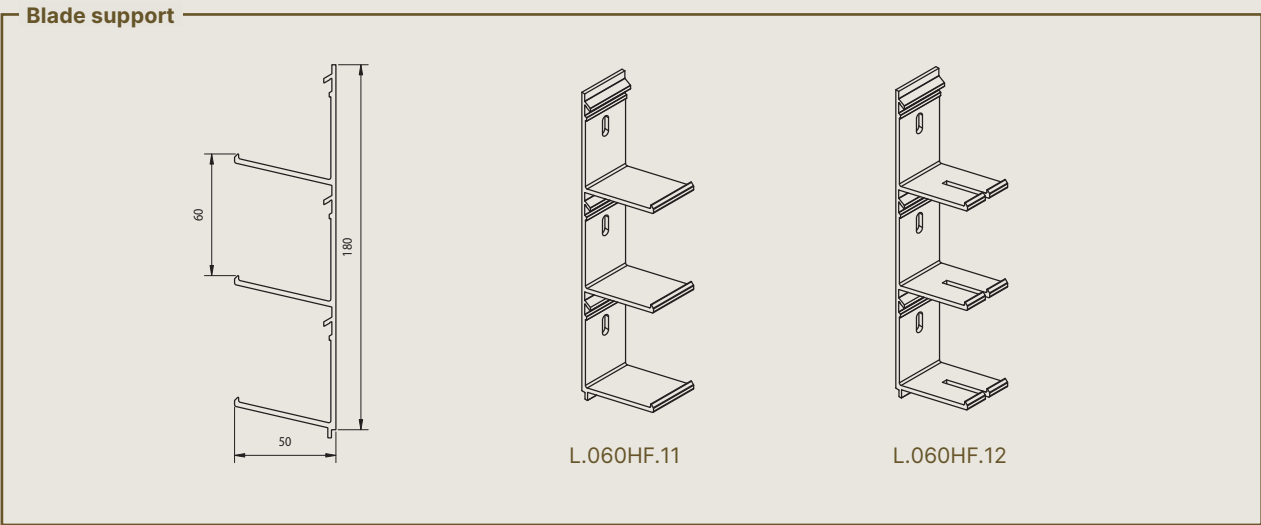
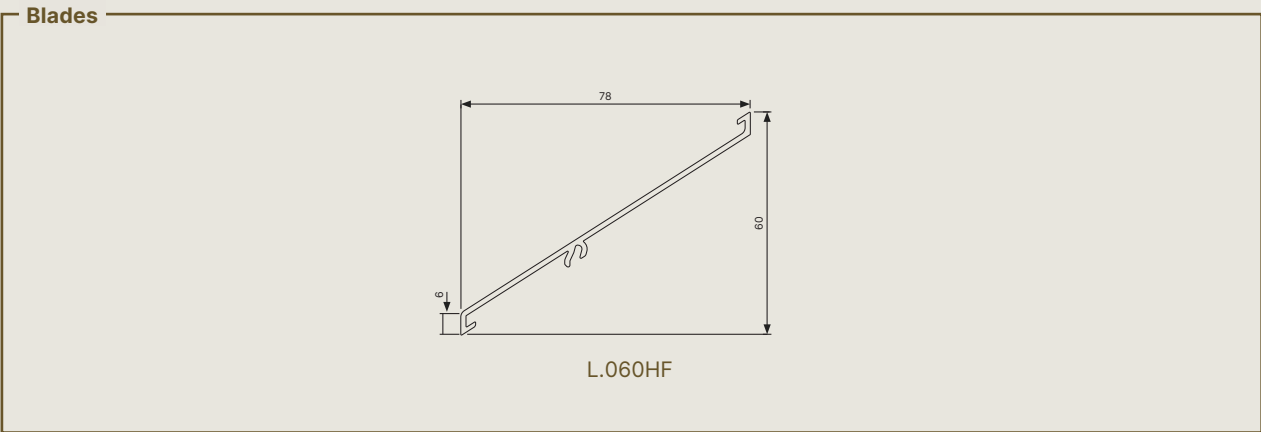
# L.060HF

Blade with minimal resistance to airflow. Especially applicable where a good airflow is required, in combination with a decent optical density and a sleek design.



Technical properties	
Material	Aluminium extrusion, alloy EN AW-6063 T66
Surface treatment	Anodisation F1 (20 micron) or Polyester powder coating (60-80 micron) in RAL colours
Options	
Mesh	Attached to the rear of the supporting structure.
Doors	Single and double doors available (see page 80)
Blade support	
Single	L.060HF.11 (width 28 mm)
Double (thermal expansion)	L.060HF.12 connection piece for 2 blades (width 34 mm)

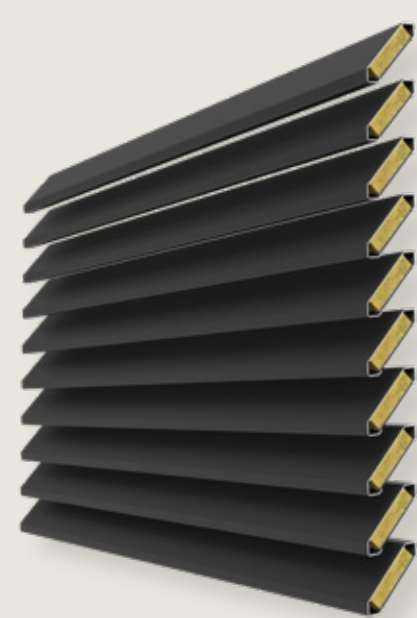
Technical details		L.060HF	
Blade pitch		60 mm	
Blade depth		78 mm	
Blade height		60 mm	
Physical free area		76%	
Visual free area		90%	
Maximum span between 2 mullions at wind pressure qp = 800 Pa		633 mm	
Resistance factor K		Air supply	Air extraction
Resistance factor K <sub>e</sub>		4.6	5.2
Flow coefficient C <sub>e</sub>		0.466	0.439
Airflow class		1	1
Water-repellency		With mesh 2×2 and sill	Without sill
At 0.0 m/s		C - 90.1%	D - 75.9%
At 0.5 m/s		C - 87.3%	D - 68.9%
At 1.0 m/s		C - 84.2%	D - 62.8%
At 1.5 m/s		C - 80.1%	D - 56.9%
At 2.0 m/s		D - 73.4%	D - 51.7%
At 2.5 m/s		D - 62.0%	D - 45.5%
At 3.0 m/s		-	D - 39.4%
At 3.5 m/s		-	D - 30.4%





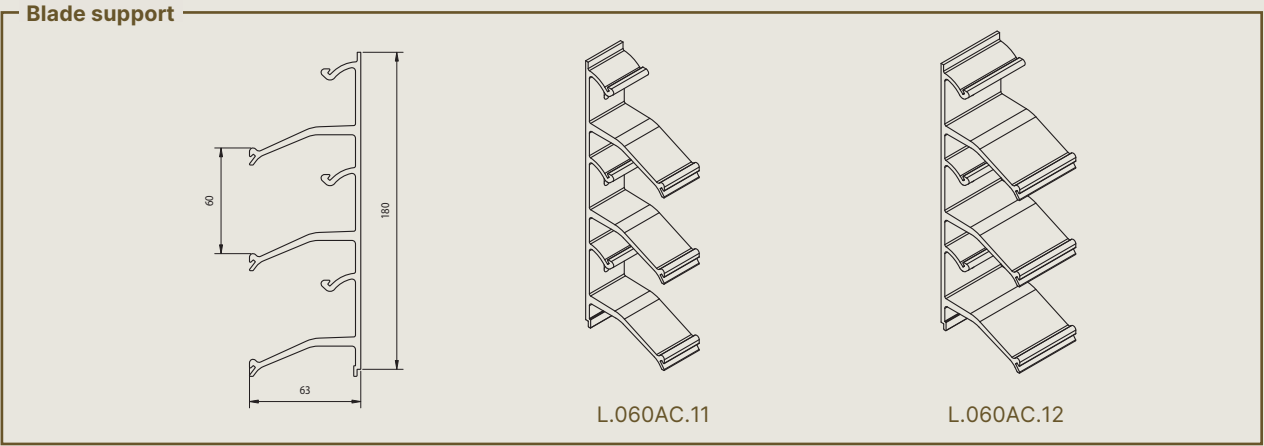
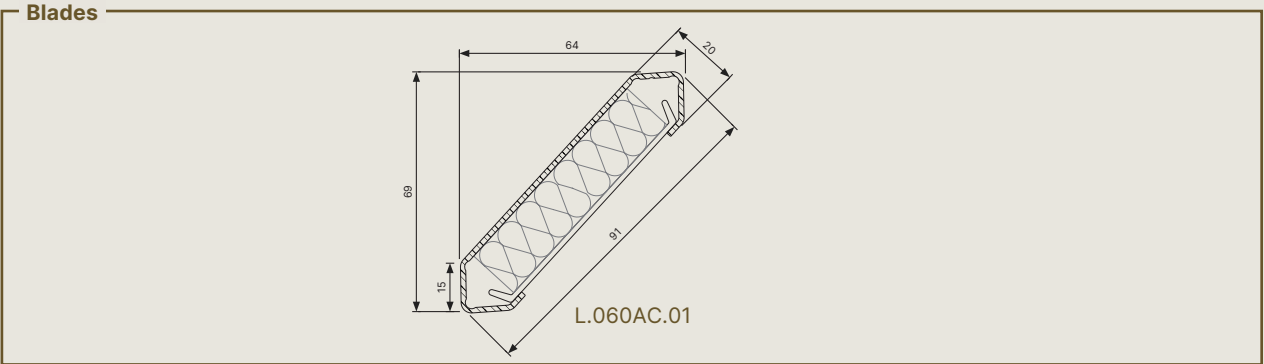
# L.060AC

Blade filled with inorganic mineral wool to create the sound-damping qualities.  
Developed to offer an aesthetic solution in a continuous louvre application where soundproofing factors are significant.



Technical properties	
Material	Aluminium extrusion, alloy EN AW-6063 T66
Surface treatment	Anodisation F1 (20 micron) or Polyester powder coating (60-80 micron) in RAL colours
Insulation	Perforated mineral wool, sealed with PVC strip
Options	
Mesh	Attached to the rear of the supporting structure.
Doors	Single and double doors available (see page 80)
Blade support	
Single	L.060AC.11 (width 28 mm)
Double (thermal expansion)	L.060AC.12 connection piece for 2 blades (width 45 mm)

Technical details		L.060AC	
Blade pitch		60 mm	
Blade depth		64 mm	
Blade height		69 mm	
Physical free area		34%	
Visual free area		75%	
Maximum span between 2 mullions at wind pressure qp = 800 Pa		1.620 mm	
Resistance factor K		Air supply	Air extraction
Resistance factor K <sub>e</sub>		10.7	10.0
Flow coefficient C <sub>e</sub>		0.306	0.316
Airflow class		2	2
Water-repellency		With mesh 2×2 and sill	Without sill
At 0.0 m/s		B - 98.0%	C - 83.3%
At 0.5 m/s		B - 95.2%	D - 73.5%
At 1.0 m/s		C - 89.9%	D - 63.2%
At 1.5 m/s		D - 76.7%	D - 50.6%
At 2.0 m/s		D - 47.6%	D - 37.6%
At 2.5 m/s		D - 20.0%	D - 28.5%
At 3.0 m/s		D - 15.4%	D - 23.5%
At 3.5 m/s		D - 8.3%	D - 20.2%
Sound damping			
R <sub>w</sub>		6 dB	
C		-1 dB	
C <sub>tr</sub>		-2 dB	



# L.066.01 / L.066.06 / L.066S

## L.066.01

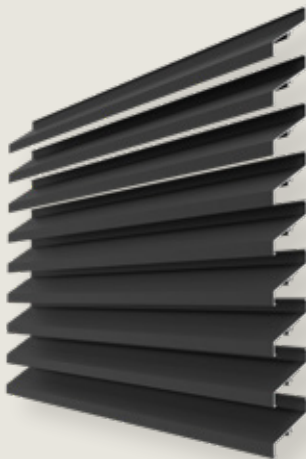
Blade with a high airflow and a 66 mm pitch.  
Top blade L.066.02 available for beautiful top finish.

## L.066.06

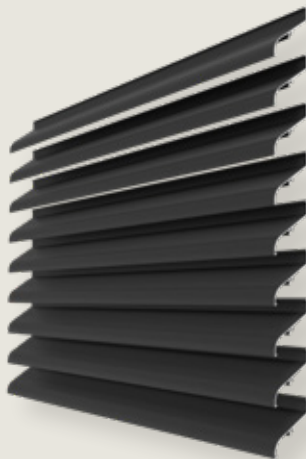
Blade with good visual screening, with adjusted visual rhythm open/close = 33mm/33mm.

## L.066S

Project profile with rounded nose section. Extrusions upon request.  
Variable pitches between 66 to 132 mm are possible with blade holder types L.066.13 and L.066.14.



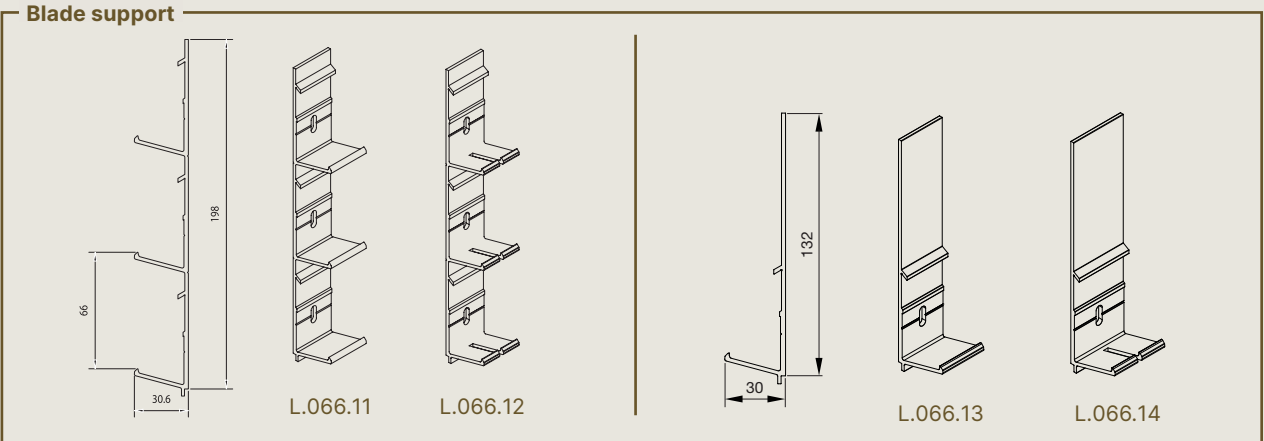
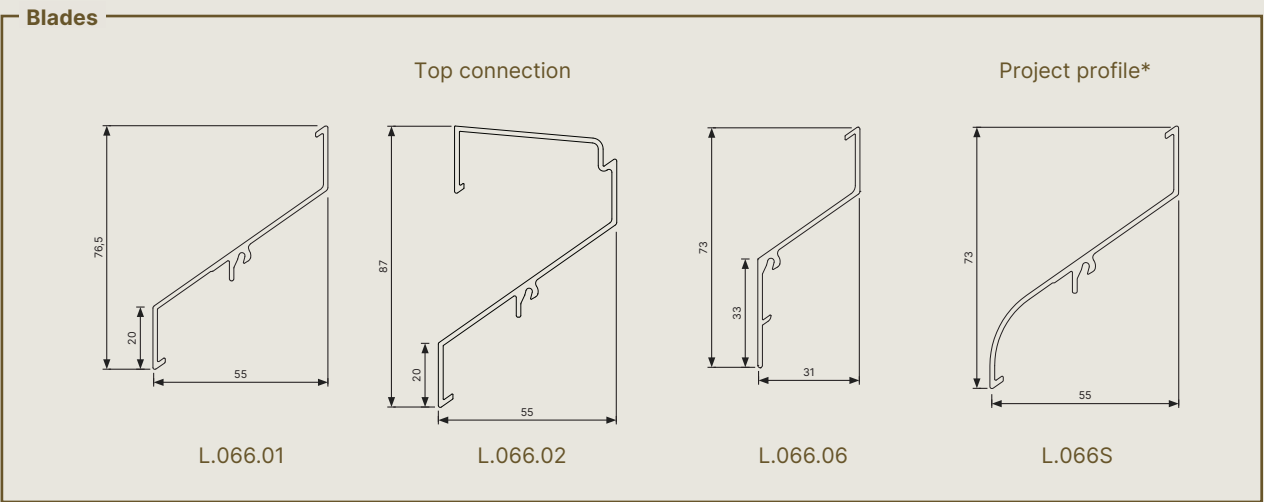
L.066



L.066S

Technical properties		
Material	Aluminium extrusion, alloy EN AW-6063 T66	
Surface treatment	Anodisation F1 (20 micron) or Polyester powder coating (60-80 micron) in RAL colours	
Options		
Top connection	L.066.02	
Mesh	Rear of the supporting structure or in combination with blade L.066IM1.	
Doors	Single and double doors available (see page 80)	
Blade support	66 mm pitch	Pitches 66 - 132 mm
Single	L.066.11 (width 28 mm)	L.066.13 (width 28 mm)
Double (thermal expansion)	L.066.12 connection piece for 2 blades (width 34 mm)	L.066.14 connection piece for 2 blades (width 34 mm)

Technical details	L.066.01		L.066.06		L.066S	
Blade pitch	66 mm		66 mm		66 mm	
Blade depth	55 mm		31 mm		55 mm	
Blade height	76 mm		73 mm		76 mm	
Physical free area	49%		38%		49%	
Visual free area	70%		50%		70%	
Maximum span between 2 mullions at wind pressure qp = 800 Pa	1.616 mm		1.392 mm		1.577 mm	
Resistance factor K	Air supply	Air extraction	Air supply	Air extraction	Air supply	Air extraction
Resistance factor K <sub>e</sub>	14.2	11.8	40.6	35.9	13.6	14.6
Flow coefficient C <sub>e</sub>	0.265	0.291	0.157	0.167	0.271	0.262
Airflow class	3	3	4	4	3	3
Water-repellency	With mesh 2×2 and sill		Without sill		With mesh 2×2 and sill	
At 0.0 m/s	B - 95.5%		B - 69.7%		-	
At 0.5 m/s	C - 92.9%		C - 94.0%		-	
At 1.0 m/s	C - 90.8%		D - 91.2%		-	
At 1.5 m/s	C - 82.8%		D - 64.7%		-	
At 2.0 m/s	D - 73.6%		D - 10.9%		-	
At 2.5 m/s	-		D - 8.9%		-	
At 3.0 m/s	-		D - 8.2%		-	
At 3.5 m/s	-		D - 9.4%		-	



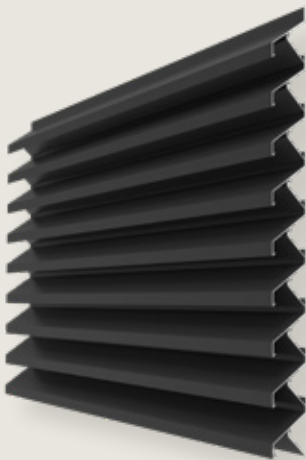
\* Project profiles not in stock. Extrusions upon request.



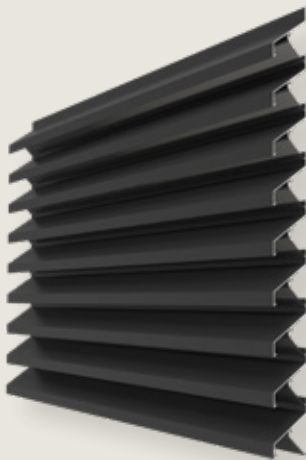
# L.066CL / L.066IM1

**L.066CL**  
Sealing blade, used for completely or partially closed continuous louvre system or if no view-through is desired. Extrusions upon request.

**L.066IM1**  
Blade with integrated insect mesh, resulting in significant time savings during assembly. The L.066IM1 can be combined perfectly with the standard blade L.066.01 and the finishing blade L.066CL. Extrusions upon request.



L.066CL

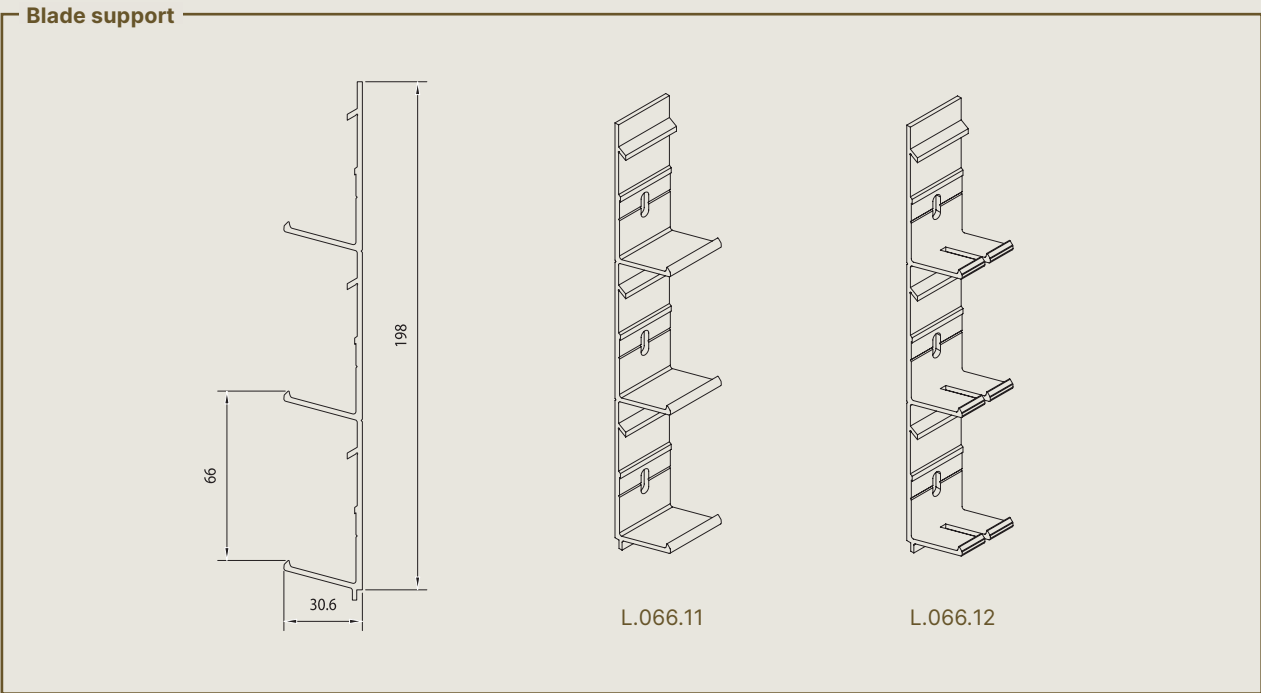
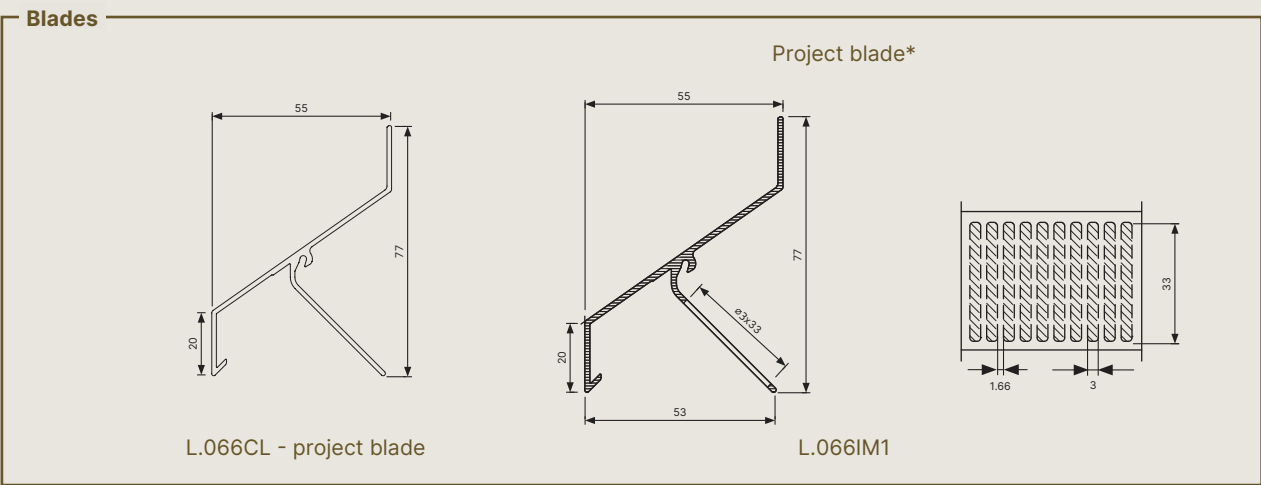


L.066IM1



Technical properties	
Material	Aluminium extrusion, alloy EN AW-6063 T66
Surface treatment	Anodisation F1 (20 micron) or Polyester powder coating (60-80 micron) in RAL colours
Options	
Doors	Single and double doors available (see page 80)
Blade support	
Single	L.066.11 (width 28 mm)
Double (thermal expansion)	L.066.12 connection piece for 2 blades (width 34 mm)

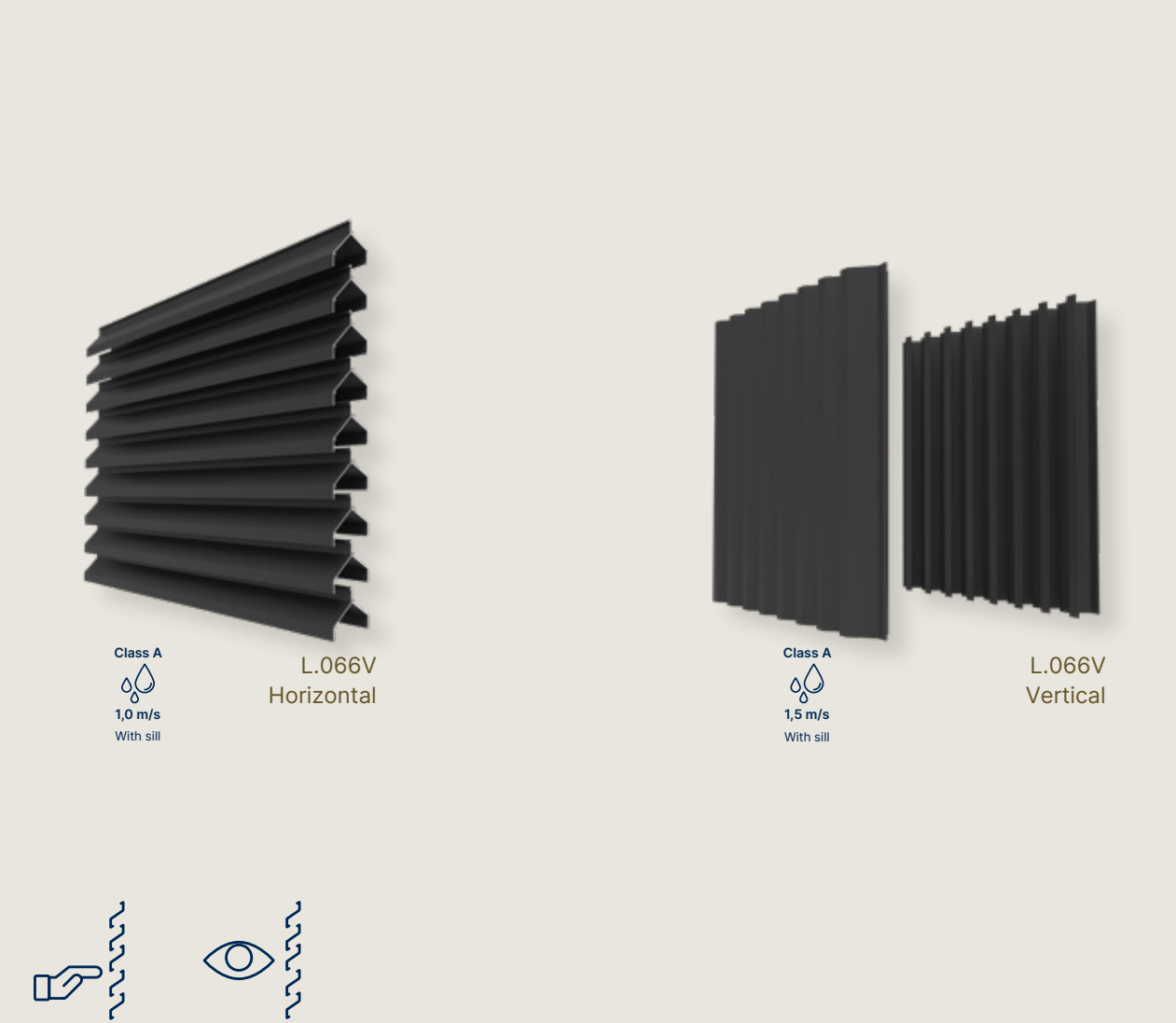
Technical details	L.066CL		L.066IM1	
Blade pitch	66 mm		66 mm	
Blade depth	55 mm		55 mm	
Blade height	76 mm		76 mm	
Physical free area	0%		32%	
Visual free area	70%		70%	
Maximum span between 2 mullions at wind pressure qp = 800 Pa	1.741 mm		1.723 mm	
Resistance factor K	Air supply	Air extraction	Air supply	Air extraction
Resistance factor K <sub>e</sub>	-	-	16.7	-
Flow coefficient C <sub>e</sub>	-	-	0.245	-
Airflow class	-	-	3	-



\* Project profiles not in stock. Extrusions upon request.

# L.066V

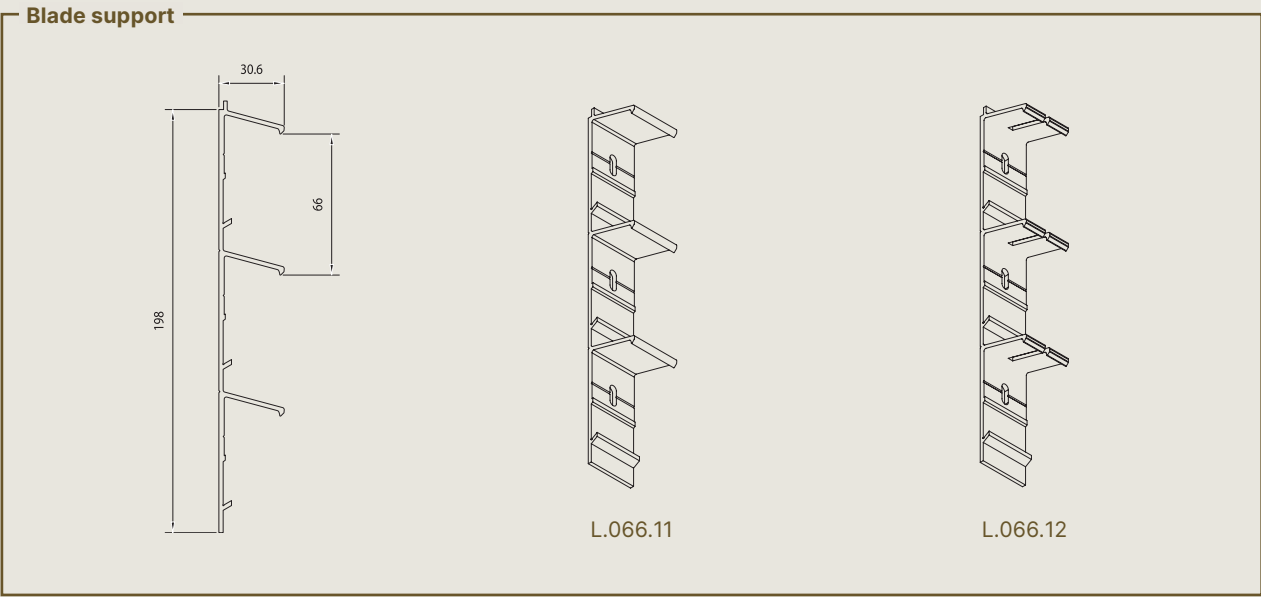
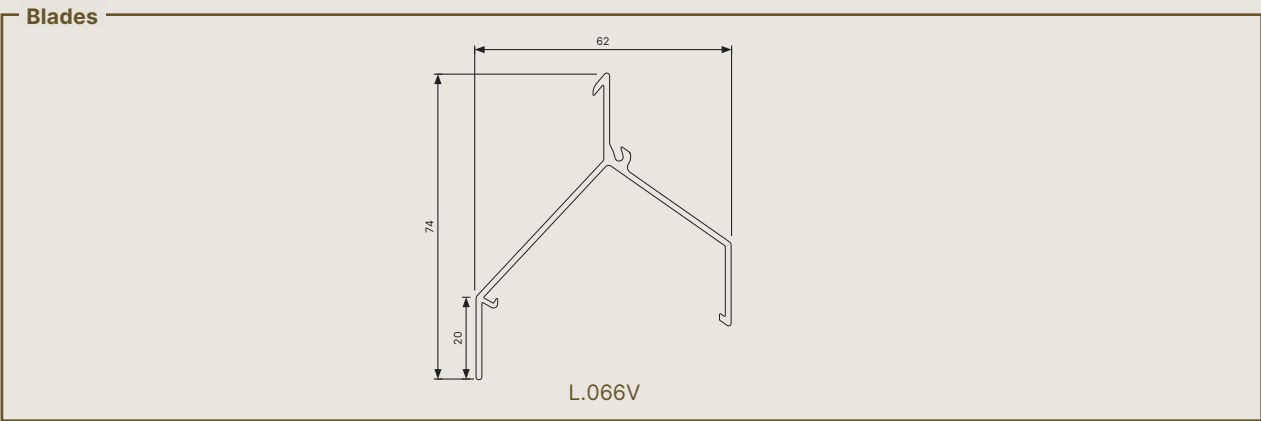
Blade for ‘high-risk’ applications, such as high-voltage cabinets, which require penetration safety. The blade also provides the necessary visual screening to offer complete privacy. If a continuous louvre system with high water-repellent properties is required, the blade is installed vertically, achieving a water tightness of class A up to 1.5 m/s according to EN13030:2001. Blade L.066V can be used together with blade L.066.01, thanks to its identical appearance



Technical properties	
Material	Aluminium extrusion, alloy EN AW-6063 T66
Surface treatment	Anodisation F1 (20 micron) or Polyester powder coating (60-80 micron) in RAL colours
Options	
Mesh	Attached to the rear of the supporting structure.
Doors	Single and double doors available (see page 80)
Blade support*	
Single	L.066.11 (width 28 mm)
Double (thermal expansion)	L.066.12 connection piece for 2 blades** (width 34 mm)

\* The blade holders are the same for all blade variants of the type L.066.  
\*\* Only for the blades of type L.066V are they placed upside down.

Technical details		L.066V	
Blade pitch		66 mm	
Blade depth		61 mm	
Blade height		74 mm	
Physical free area		41%	
Visual free area		70%	
Maximum span between 2 mullions at wind pressure qp = 800 Pa		1.533 mm	
Resistance factor K		Air supply	Air extraction
Resistance factor K <sub>e</sub>		66.1	79.7
Flow coefficient C <sub>e</sub>		0.123	0.112
Airflow class		4	4
Water-repellency		With mesh 2×2 and sill	
At 0.0 m/s		A - 100.0%	
At 0.5 m/s		A - 99.9%	
At 1.0 m/s		A - 99.6%	
At 1.5 m/s		B - 95.0%	
At 2.0 m/s		D - 56.9%	
At 2.5 m/s		D - 28.3%	
At 3.0 m/s		D - 11.6%	





# L.066P

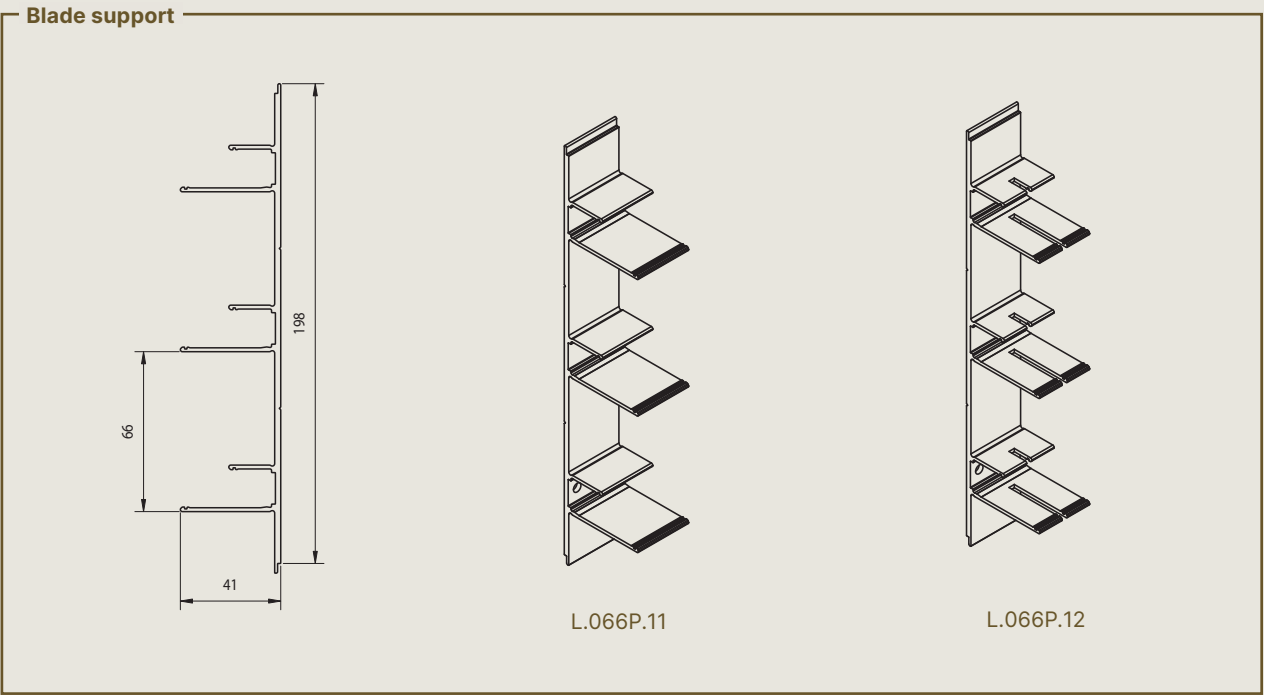
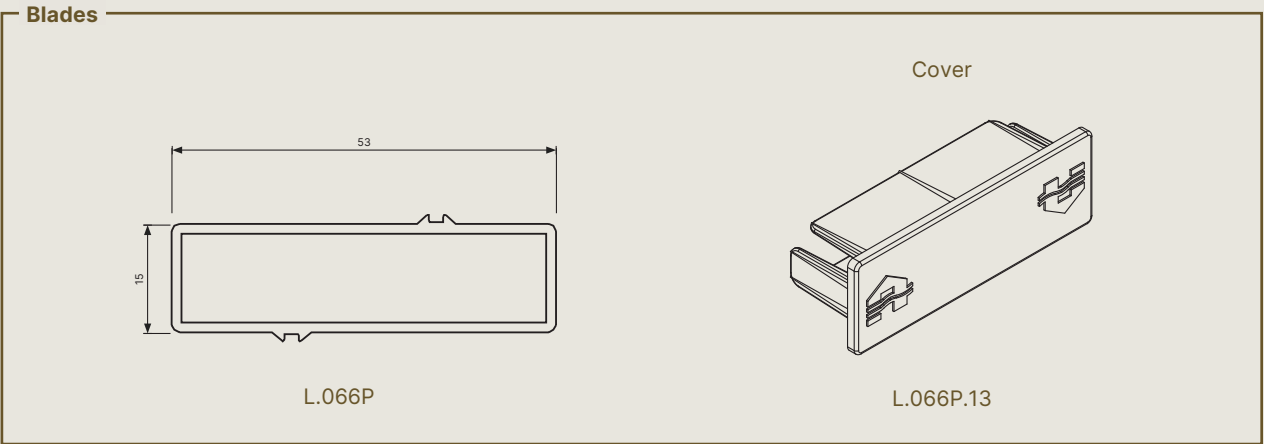
Linus Plano L.066P blades are rectangular extruded aluminium blades. The system can be used for various purposes. It offers the possibility to easily create modern architectural realisations, both in outdoor and indoor applications. For an aesthetic finish of the whole, the ends of the blades can be provided with a UPVC end cap.



Technical properties	
Material	Aluminium extrusion, alloy EN AW-6063 T66
Surface treatment	Anodisation F1 (20 micron) or Polyester powder coating (60-80 micron) in RAL colours
Options	
Cover	L.066P.13 in black or grey UPVC
Blade support	
Single	L.066P.11 (width 28 mm)
Double (thermal expansion)	L.066P.12 connection piece for 2 blades** (width 34 mm)

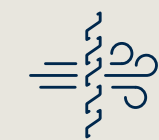
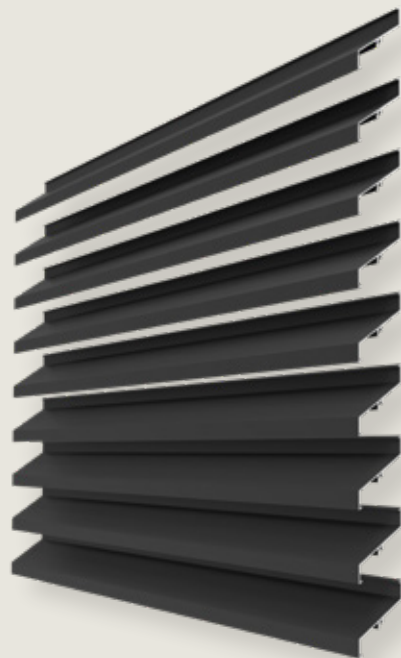
Technical details		L.066P	
Blade pitch		66 mm	
Blade depth		53 mm	
Blade height		15 mm	
Physical free area		77%	
Visual free area		77%	
Maximum span between 2 mullions at wind pressure qp = 800 Pa		1.098 mm	
Resistance factor K	Air supply	Air extraction	
Resistance factor K <sub>e</sub>	3.6	3.7	
Flow coefficient C <sub>e</sub>	0.527	0.520	
Airflow class	1	1	

- APPLICATION
- Decorative cladding
  - Ceiling cladding
  - Partition walls
  - Visual seclusion
  - Sun protection blades
  - Both outside and
  - Indoor applications



# L.075HF

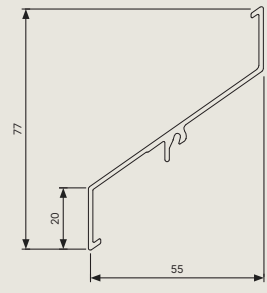
Extruded aluminium profile with minimum resistance to airflow. Provided for application where a good airflow and high water-repellency is required. Recommended solution for air extraction.



Technical properties	
Material	Aluminium extrusion, alloy EN AW-6063 T66
Surface treatment	Anodisation F1 (20 micron) or Polyester powder coating (60-80 micron) in RAL colours
Options	
Mesh	Attached to the rear of the supporting structure.
Doors	Single and double doors available (see page 80)
Blade support	
Single	L.075HF.11 (width 28 mm)
Double (thermal expansion)	L.075HF.12 connection piece for 2 blades** (width 34 mm)

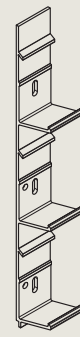
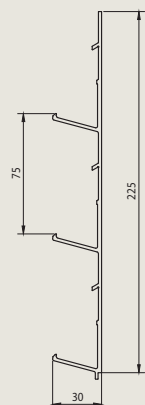
Technical details		L.075HF	
Blade pitch		75 mm	
Blade depth		55 mm	
Blade height		76 mm	
Physical free area		52%	
Visual free area		73%	
Maximum span between 2 mullions at wind pressure qp = 800 Pa		1.616 mm	
Resistance factor K		Air supply	Air extraction
Resistance factor K <sub>e</sub>		13.1	14.2
Flow coefficient C <sub>e</sub>		0.276	0.265
Airflow class		3	3
Water-repellency		With mesh 2×2 and sill	Without sill
At 0.0 m/s		B - 96.9%	C - 90.4%
At 0.5 m/s		B - 95.2%	C - 87.3%
At 1.0 m/s		C - 93.7%	C - 84.8%
At 1.5 m/s		C - 89.2%	C - 81.3%
At 2.0 m/s		D - 79.9%	D - 73.9%
At 2.5 m/s		D - 66.5%	D - 54.9%
At 3.0 m/s		D - 48.5%	D - 37.7%
At 3.5 m/s		D - 36.0%	D - 15.5%

Blades




L.066.01

Blade support



L.075HF.11

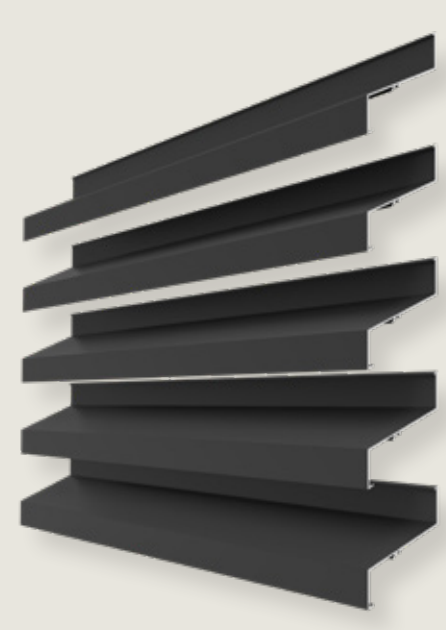


L.075HF.12



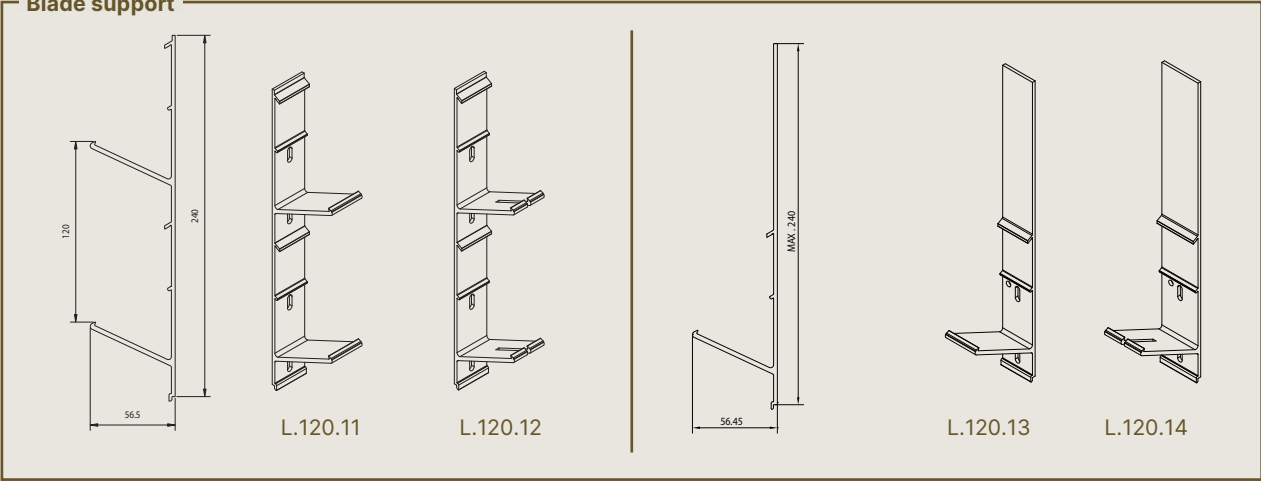
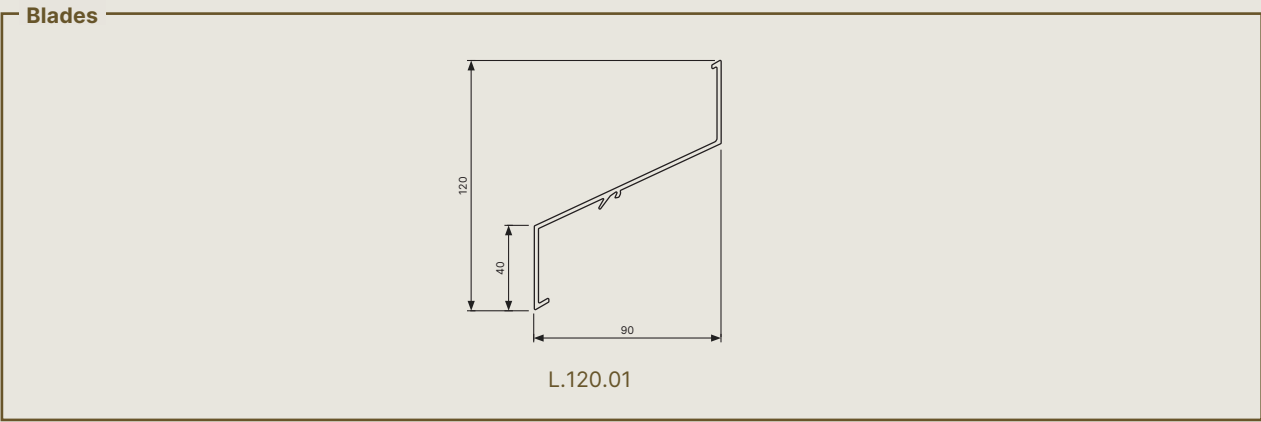
# L.120.01

Blade with large free span, with good airflow and a 120 mm pitch.  
An optimal installation speed can be realised as fewer mullions and blades are needed.



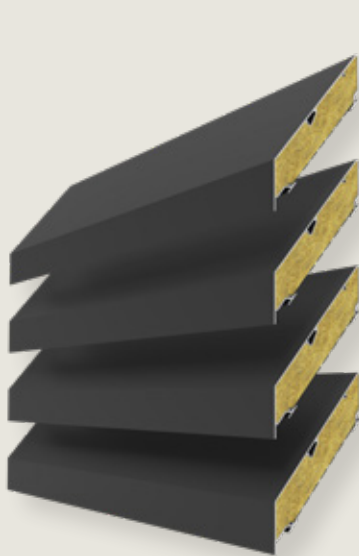
Technical properties		
Material	Aluminium extrusion, alloy EN AW-6063 T66	
Surface treatment	Anodisation F1 (20 micron) or Polyester powder coating (60-80 micron) in RAL colours	
Options		
Mesh	Attached to the rear of the supporting structure.	
Doors	Single and double doors available (see page 80)	
Blade support	120 mm pitch	Pitches 120 - 240 mm
Single	L.120.11 (width 28 mm)	L.120.13 (width 28 mm)
Double (thermal expansion)	L.120.12 connection piece for 2 blades (width 34 mm)	L.120.14 connection piece for 2 blades (width 34 mm)

Technical details		L.120.01
Blade pitch	120 mm	
Blade depth	90 mm	
Blade height	120 mm	
Physical free area	60%	
Visual free area	66%	
Maximum span between 2 mullions at wind pressure qp = 800 Pa	2.061 mm	
Resistance factor K	Air supply	Air extraction
Resistance factor K <sub>e</sub>	9.5	8.8
Flow coefficient C <sub>e</sub>	0.324	0.337
Airflow class	2	2
Water-repellency	With mesh 2×2 and sill	Without sill
At 0.0 m/s	B - 97.1%	C - 93.6%
At 0.5 m/s	B - 95.3%	C - 91.8%
At 1.0 m/s	C - 93.3%	C - 89.9%
At 1.5 m/s	C - 91.5%	C - 87.7%
At 2.0 m/s	C - 88.5%	C - 81.2%
At 2.5 m/s	C - 80.5%	D - 68.4%
At 3.0 m/s	D - 66.7%	D - 55.9%
At 3.5 m/s	D - 56.2%	D - 47.2%

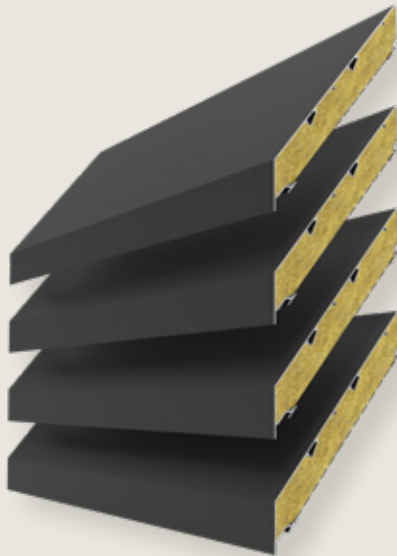


# L.150ACS / L.150ACL

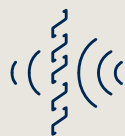
Blade filled with inorganic mineral wool to create the sound-damping qualities. Developed to offer an aesthetic solution in a continuous louvre application where soundproofing factors are significant. For an aesthetic finishing of the whole and protection of the mineral wool, the ends of the blades can be provided with laser-cut aluminium end caps.



L.150ACS



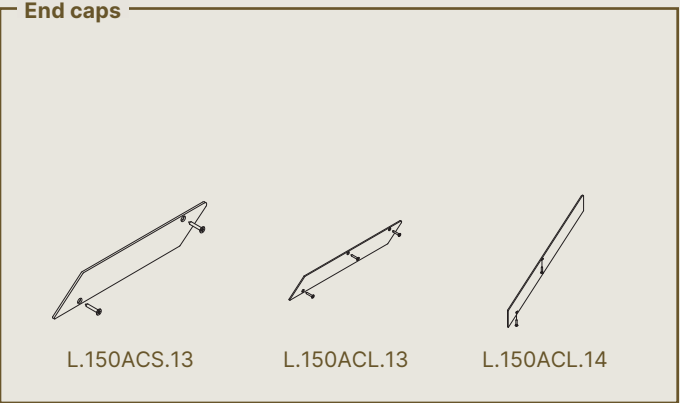
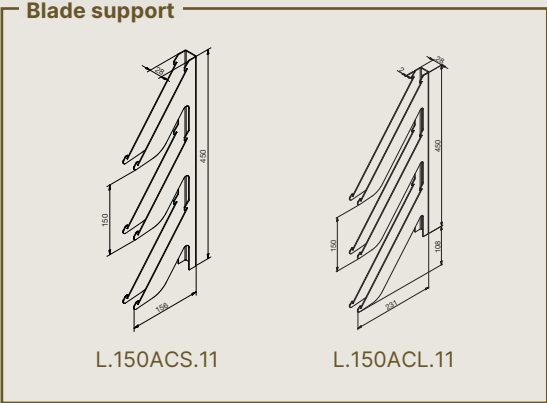
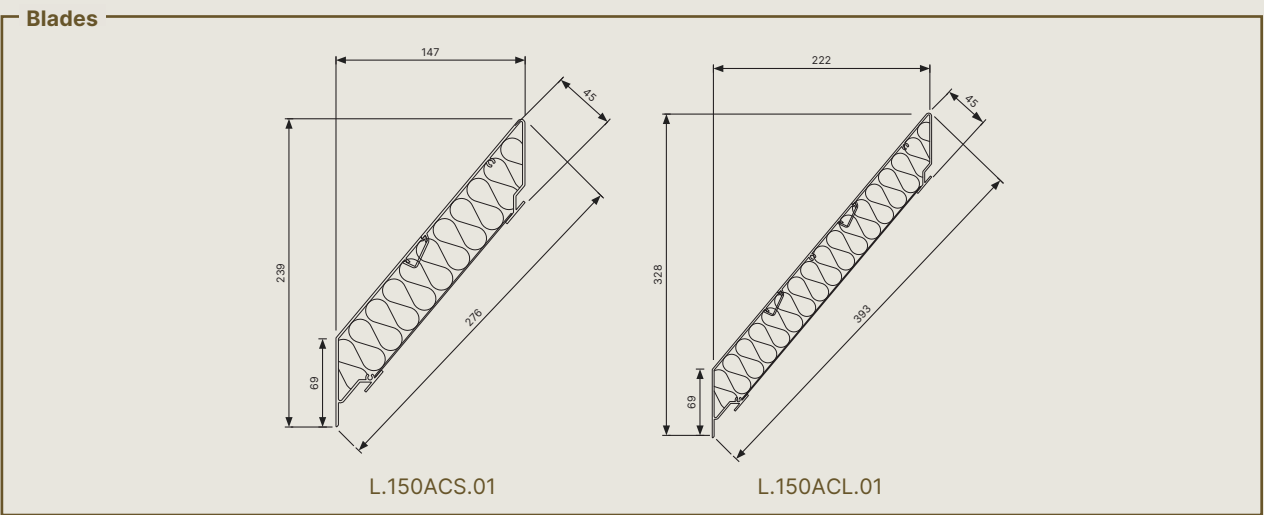
L.150ACL



Technical properties		
Material	Aluminium extrusion, alloy EN AW-6063 T66, perforated aluminium plate	
Surface treatment	Anodisation F1 (20 micron) or Polyester powder coating (60-80 micron) in RAL colours	
Perforated plate rear	Coated in black (matte 9005)	
Options	L.150ACS	L.150ACL
Mesh	Attached rear of the supporting structure	
Doors	Single and double doors: upon request	
End caps	L.150ACS.13	L.150ACL.13 L.150ACL.14 for mitred corners 45°
Blade support		
Single	L.150ACS.11	L.150ACL.11

Technical details		L.150ACS		L.150ACL	
Blade pitch		150 mm		150 mm	
Blade depth		147 mm		222 mm	
Blade height		239 mm		328 mm	
Physical free area		34%		34%	
Visual free area		54%		54%	
Maximum span between 2 mullions at wind pressure qp = 800 Pa		2.858 mm		2.632 mm	
Resistance factor K		Air supply	Air extraction	Air supply	Air extraction
Resistance factor K <sub>e</sub>		38.6*	35.0*	37.3	41.9
Flow coefficient C <sub>e</sub>		0.161	0.169	0.164	0.154
Airflow class		4	4	4	4
Water-repellency		With mesh 2×2 and sill		With mesh 2×2 and sill	
At 0.0 m/s		A - 99.3%		-	
At 0.5 m/s		B - 96.6%		-	
At 1.0 m/s		C - 91.3%		-	
At 1.5 m/s		D - 78.1%		-	
At 2.0 m/s		D - 48.3%		-	
At 2.5 m/s		D - 35.8%		-	
At 3.0 m/s		D - 28.9%		-	
Sound damping					
R <sub>w</sub>		11 dB		15 dB	
C		-1 dB		-1 dB	
C <sub>tr</sub>		-2 dB		-4 dB	

\*Measured on louvre with mesh 2.3 mm x 2.3 mm





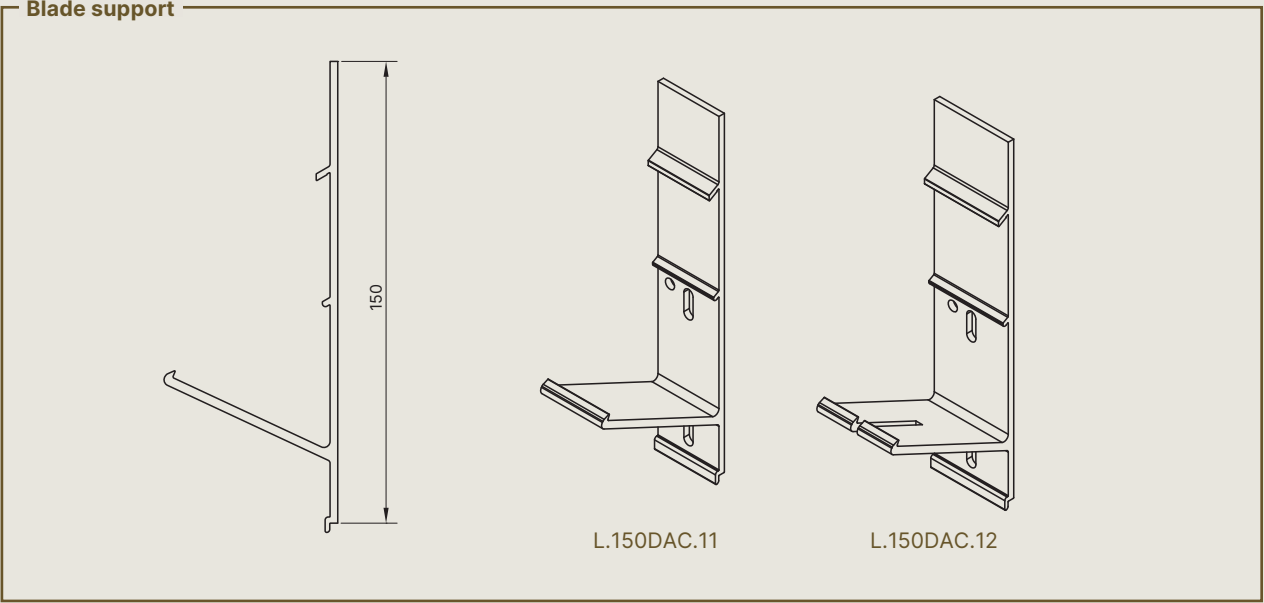
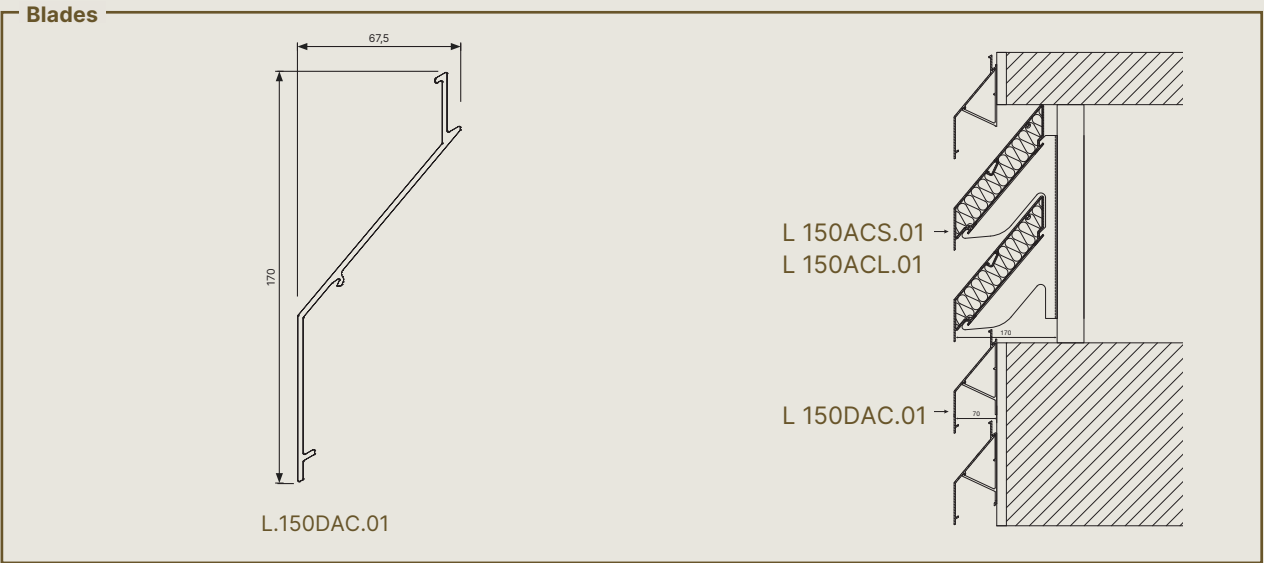
# L.150DAC

This blade can be combined with the acoustic blades L.150ACS / L.150ACL in places in the façade where acoustic damping is not required.



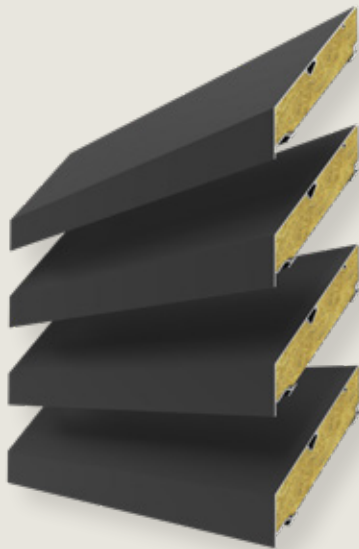
Technical properties	
Material	Aluminium extrusion, alloy EN AW-6063 T66
Surface treatment	Anodisation F1 (20 micron) or Polyester powder coating (60-80 micron) in RAL colours
Blade support	
Single	L.150DAC.11 (width 28 mm)
Double (thermal expansion)	L.150DAC.12 connection piece for 2 blades** (width 34 mm)

Technical details		L.150DAC	
Blade pitch		150 mm	
Blade depth		70 mm	
Blade height		170 mm	
Physical free area		34%	
Visual free area		54%	
Maximum span between 2 mullions at wind pressure qp = 800 Pa		2.381 mm	
Resistance factor K	Air supply		Air extraction
Resistance factor K <sub>e</sub>	47.7		42.5
Flow coefficient C <sub>e</sub>	0.145		0.153
Airflow class	4		4

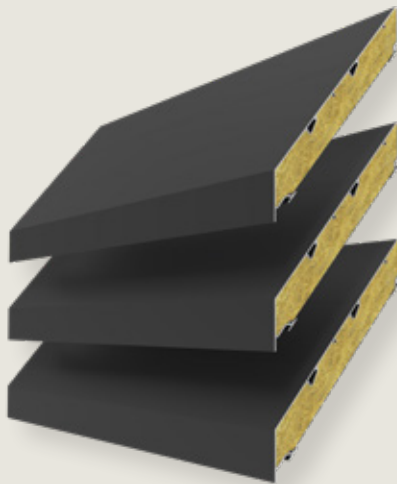


# L.170ACS / L.170ACL

Blade filled with inorganic mineral wool to create the sound-damping qualities. Developed to offer an aesthetic solution in a continuous louvre application where soundproofing factors are significant. For an aesthetic finishing of the whole and protection of the mineral wool, the ends of the blades can be provided with laser-cut aluminium end caps.



L.170ACS

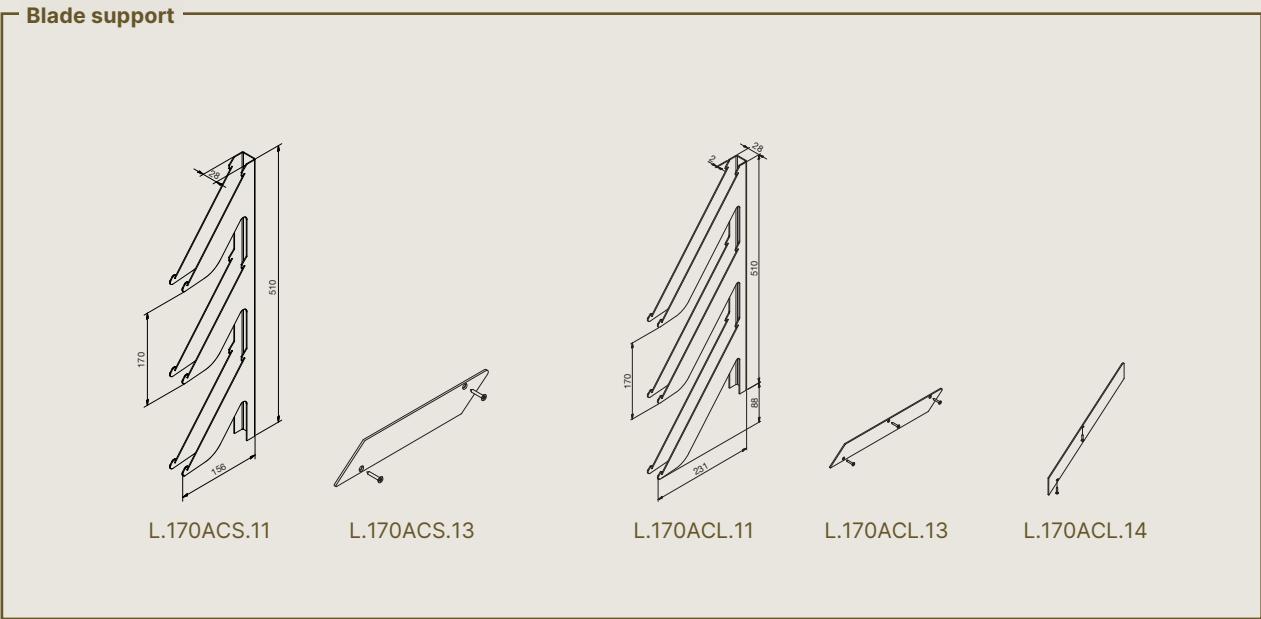
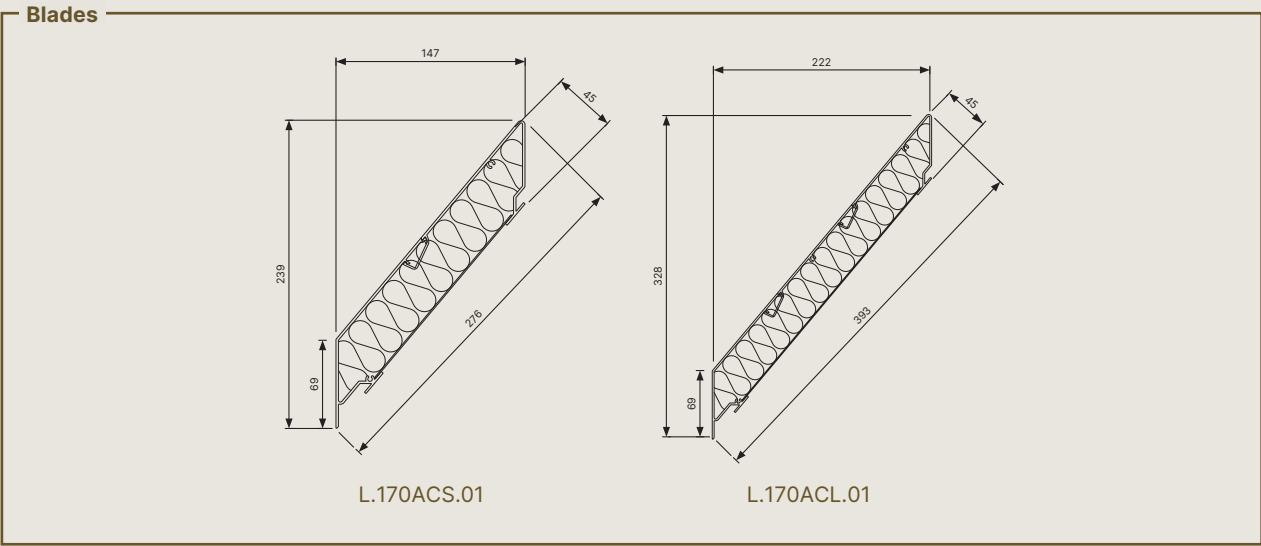


L.170ACL



Technical properties		
Material	Aluminium extrusion, alloy EN AW-6063 T66	
Surface treatment	Anodisation F1 (20 micron) or Polyester powder coating (60-80 micron) in RAL colours	
Perforated plate rear	Coated in black (matte 9005)	
Options	L.170ACS	L.170ACL
Mesh	Attached rear of the supporting structure	
Doors	Single and double doors available (see page 80)	
End caps	L.170ACS.13	L.170ACL.13 L.170ACL.14 for mitred corners 45°
Blade support		
Single	L.170ACS.11	L.170ACL.11

Technical details		L.170ACS	L.170ACL	
Blade pitch		170 mm	170 mm	
Blade depth		147 mm	222 mm	
Blade height		239 mm	328 mm	
Physical free area		37%	37%	
Visual free area		59%	59%	
Maximum span between 2 mullions at wind pressure qp = 800 Pa		2.858 mm	2.632 mm	
Resistance factor K	Air supply	Air extraction	Air supply	Air extraction
Resistance factor K <sub>e</sub>	25.4	25.1	28.6	30.9
Flow coefficient C <sub>e</sub>	0.198	0.200	0.187	0.180
Airflow class	4	4	4	4
Sound damping				
R <sub>w</sub>	9 dB		13 dB	
C	0 dB		-1 dB	
C <sub>tr</sub>	-1 dB		-3 dB	





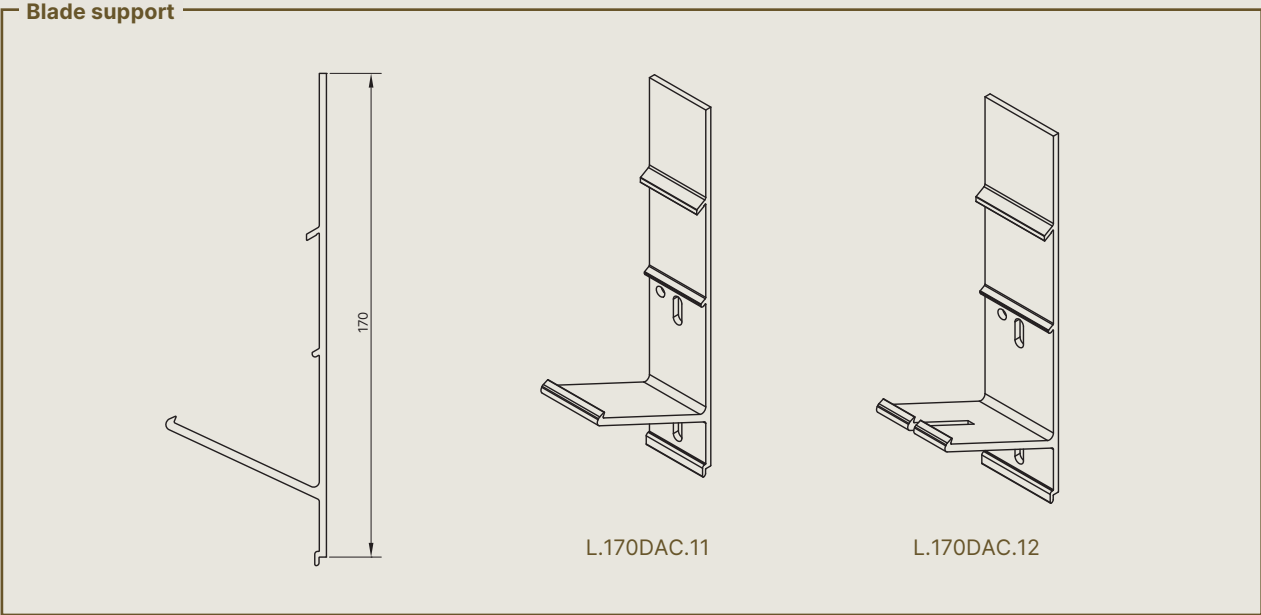
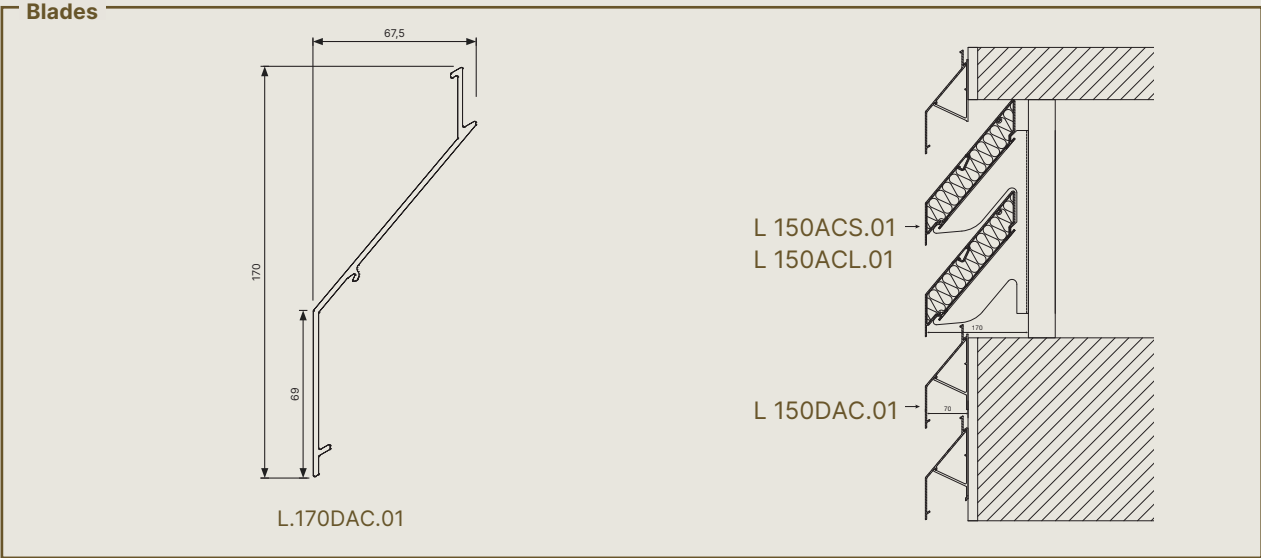
# L.170DAC

This blade can be combined with the acoustic blades L.170ACS / L.170ACL in places in the façade where acoustic damping is not required.



Technical properties	
Material	Aluminium extrusion, alloy EN AW-6063 T66
Surface treatment	Anodisation F1 (20 micron) or Polyester powder coating (60-80 micron) in RAL colours
Blade support	
Single	L.170DAC.11 (width 28 mm)
Double (thermal expansion)	L.170DAC.12 connection piece for 2 blades** (width 34 mm)

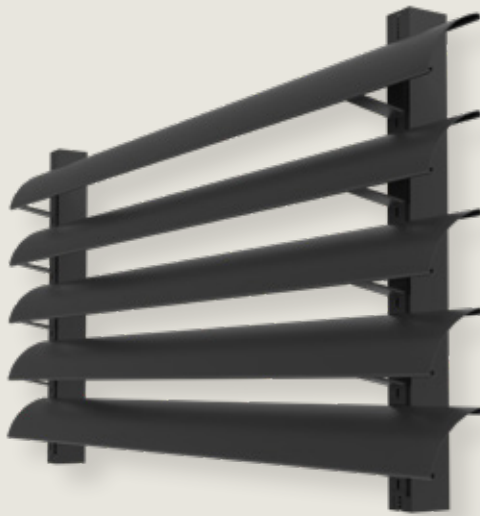
Technical details		L.170DAC	
Blade pitch		170 mm	
Blade depth		70 mm	
Blade height		170 mm	
Physical free area		37%	
Visual free area		59%	
Maximum span between 2 mullions at wind pressure qp = 800 Pa		2.381 mm	
Resistance factor K	Air supply	Air extraction	
Resistance factor K <sub>e</sub>	41.1	37.6	
Flow coefficient C <sub>e</sub>	0.156	0.163	
Airflow class	4	4	



# SUNCLIPS® EVO

## Aesthetic blades for façade cladding / sun protection

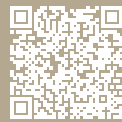
Sunclips Evo blades are extruded aluminium blades that can be used as sun protection, façade cladding or as a visual barrier. Sunclips Evo blades are semi-open C-shaped profiles fitted with screw channels with 96, 130 and 176 mm respectively as oversized dimensions.



Technical properties	
Material	Aluminium extrusion, alloy EN AW-6063 T66
Surface treatment	Anodisation F1 (20 micron) or Polyester powder coating (60-80 micron) in RAL colours
Options	
Mesh	Attached to the rear of the supporting structure.
Doors	Single and double doors available (see page 80)
Blade support	
Single	SE.082.11 (width 28 mm)
Double (thermal expansion)	SE.082.12 connection piece for 2 blades (width 45 mm)

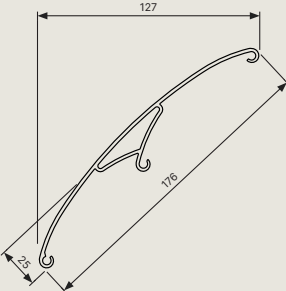
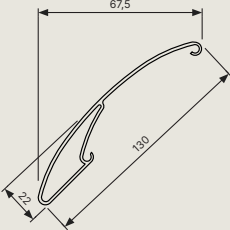
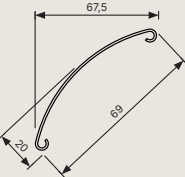
Technical details	SE.096	SE.130	SE.176
Pitch	100 mm (larger pitch possible)		
Depth and height	70 mm	94.5 mm	127 mm
Physical free area	53%	53%	53%
K-value	6.23	Unavailable	Unavailable
Maximum span between 2 mullions at wind pressure qp = 800 Pa	1200 mm	1800 mm	1800 mm

ND: Not determined.



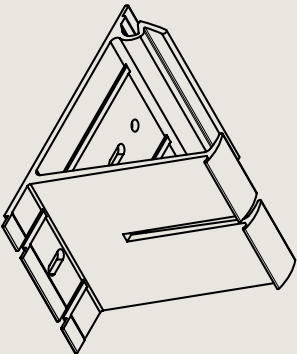
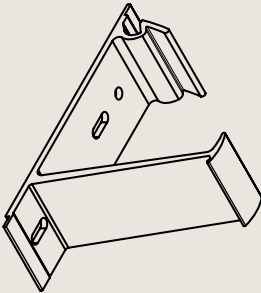
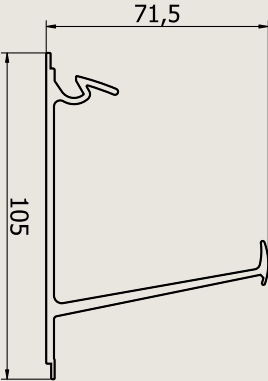
Discover the full range of structural sun protection here

Blades



SE.096SE.130SE.176

Blade support



SE 082.11SE 082.12



# SUPPORT STRUCTURES

## Aluminium mullions for mounting blade supports and blades.

The complete homogeneous structure is designed according to CEN/TC 250/ SC9 Eurocode – 9/BS8118, for structural use of aluminium. The placement of the mullions is determined in accordance with CEN/TC 250/SC1 Eurocode 1/BS CP152, chapter 3 and good workmanship.

The blades click onto the blade supports. The choice of pitch and other performance is based on the data described in this documentation. The various possibilities of doors, mitred corners and acoustic elements can be selected and integrated into the design, see page 76.











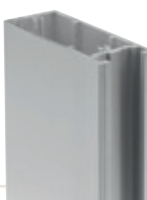
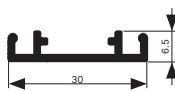
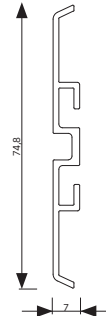
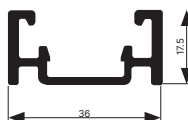
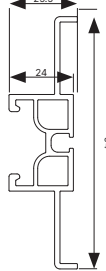
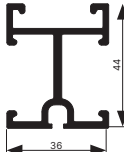
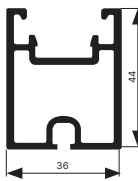
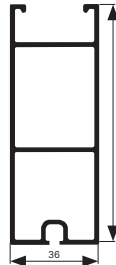
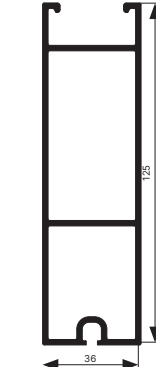

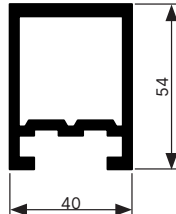
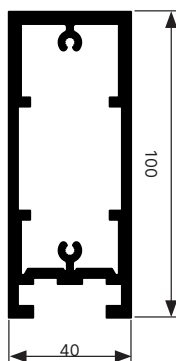
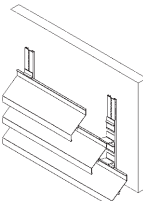
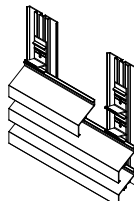
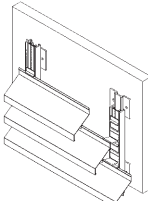
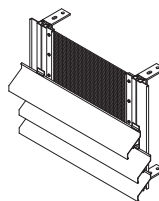
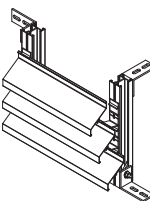
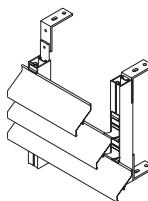
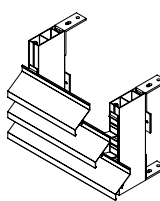
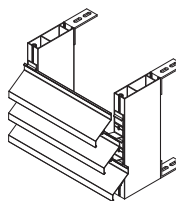
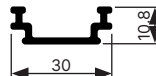
The entire supporting structure is prepared for mounting the blade supports. This mounting may have already been fully done at the factory or left partly for installation on site. The latter possibility maintains the flexibility to fix the final blade supports and cut the mullions to size on site, therefore ensuring the perfect fit.



# OVERVIEW OF SUPPORT STRUCTURES

**Material**  
Aluminium extrusion, alloy EN AW-6063 T66

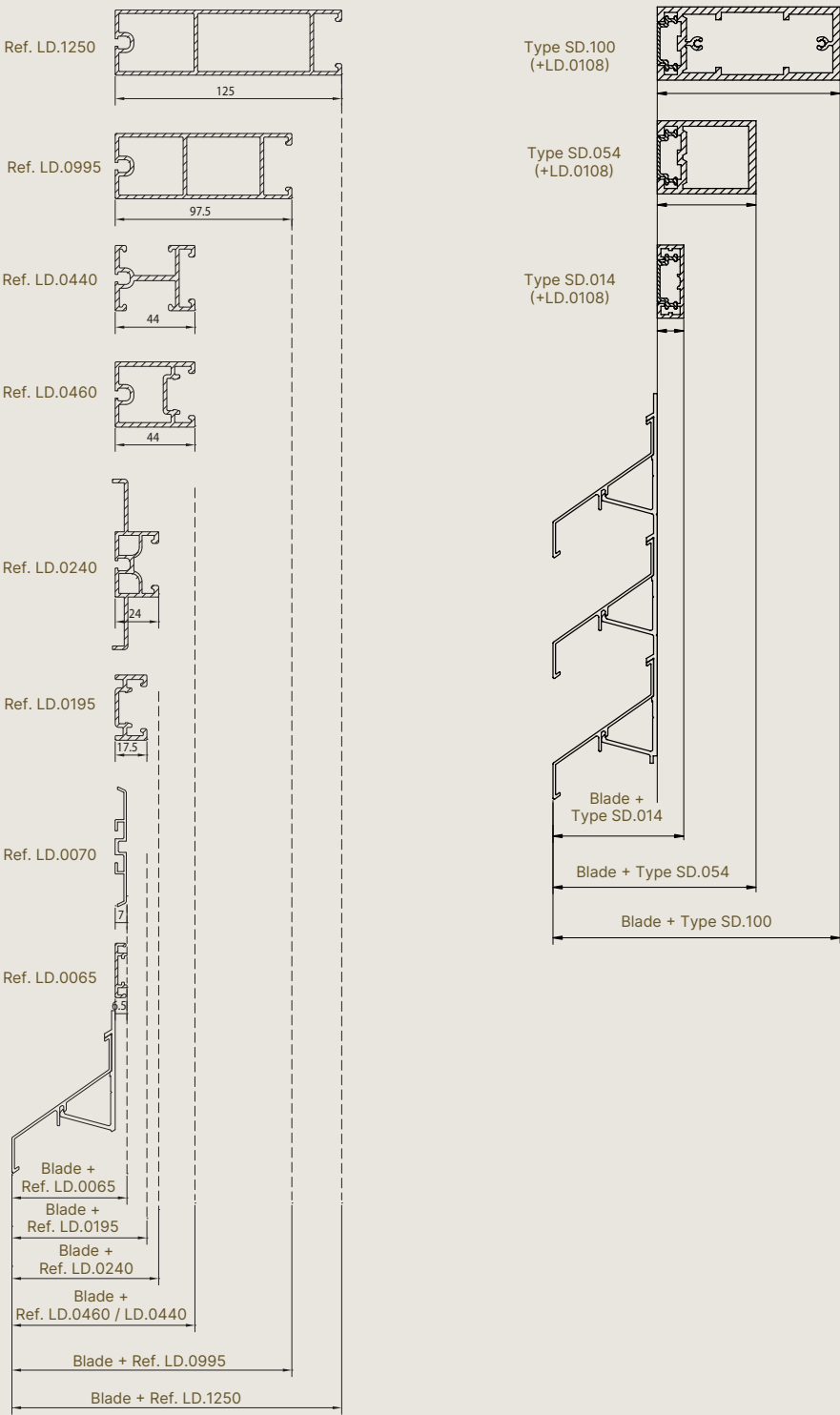
- Surface treatment**
- Anodised (20 micron) F1
  - Polyester powder coating (60-80 micron) in RAL colours

Linius support structures										Sunclips support structures		
Mullion	LD.0065	LD.0070	LD.0195	LD.0240	LD.0440		LD.0460	LD.0995	LD.1250	SD.014	SD.054	SD.100
Application	For linear mounting. Can be directly mounted to an existing wall or steel supporting structure.	For linear mounting. Can be directly mounted to an existing wall or steel supporting structure.	For limited free span. Can be directly mounted to an existing wall or steel supporting structure.	For sideways mounting of mesh wire.	For making constructions and sideways mounting.		For average free span.	For a large free span.	For very large spans.	For linear mounting. Can be directly mounted to an existing wall or steel supporting structure.	For large free span.	For very large free span.
										To be used together with adapter profile LD.0108. The standard Renson mounting materials cannot be used on these support profiles.		
Profile depth	6.5 mm	7 mm	17.5 mm	25.5 mm	44 mm		44 mm	97.5 mm	125 mm	14.5 mm	54 mm	100 mm
Profile width	30 mm	74.8 mm	36 mm	94 mm	36 mm		36 mm	36 mm	36 mm	40 mm	40 mm	40 mm
Moment of inertia	261 mm <sup>4</sup>	930 mm <sup>4</sup>	5931 mm <sup>4</sup>	17,402 mm <sup>4</sup>	83,228 mm <sup>4</sup>		83,357 mm <sup>4</sup>	625,600 mm <sup>4</sup>	1,219,444 mm <sup>4</sup>	4,506 mm <sup>4</sup>	208,600 mm <sup>4</sup>	1,248,321 mm <sup>4</sup>
Moment of resistance	60 mm <sup>3</sup>	211 mm <sup>3</sup>	570 mm <sup>3</sup>	1120 mm <sup>3</sup>	3622 mm <sup>3</sup>		3462 mm <sup>3</sup>	12,100 mm <sup>3</sup>	18,531 mm <sup>3</sup>	495 mm <sup>3</sup>	7371 mm <sup>3</sup>	24,381 mm <sup>3</sup>
Max. span (Hmax)*	-	-	± 600 mm	± 1,000 mm	± 1,500 mm		± 1,500 mm	± 2,800 mm	± 3,600 mm	± 600 mm	± 2,000 mm	± 3,600 mm
												
												
										 Adapter profile LD.0108		

(\*Max span is calculated for a wind pressure of 800Pa and depends on applicable regulations and type of blade)

# DEPTH OF THE CONTINUOUS LOUVRE SYSTEM

Total depth of a continuous louvre system (values in mm)											
	LD.0065	LD.0070	LD.0195	LD.0240	LD.0440	LD.0460	LD.0995	LD.1250	SD.014	SD.054	SD.100
L.033.01 / L.033.08 / L.033CL / L.033IM1	29	30	40	47	67	67	120	148	37	77	123
L.033V	48	49	59	66	86	86	139	167	56	96	142
L.050.00 / L.050.25 / L.050HF / L.050CL / L.050IM1 / L.050IM2	50	51	61	68	88	88	141	169	58	98	144
L.050W	139	140	150	157	177	177	230	258	147	187	233
L.050WS	59	60	70	77	97	97	150	178	67	107	153
L.060HF	87	88	98	105	125	125	178	206	95	135	181
L.060AC	83	84	94	101	121	121	174	202	91	131	177
L.066.01 / L.066S / L.066CL / L.066IM1	64	65	75	82	102	102	155	183	72	112	158
L.066.06	40	41	51	58	78	78	131	159	48	88	134
L.066P	62	63	73	80	100	100	153	181	70	110	156
L.066V	70	71	81	88	108	108	161	189	78	118	164
L.075HF	64	65	75	82	102	102	155	183	72	112	158
L.120	99	100	110	117	137	137	190	218	107	147	193
L.150DAC / L.170DAC	77	78	88	95	115	115	168	196	85	125	171
L.150ACS / L.170ACS	177	178	188	195	215	215	268	296	185	225	271
L.150ACL / L.170ACL	252	253	263	270	290	290	343	371	260	300	346
SE.096.01	82	83	93	100	120	120	173	201	90	130	176
SE.130.01	106	107	117	124	144	144	197	225	114	154	200
SE.176.01	138	139	149	156	176	176	229	257	146	186	232







# MOUNTING ELEMENTS

The Linius mullions are attached to an existing structure using specific brackets. With the brackets type LZ.4202, LZ.4203, LZ.4206, LZ.4209 and LZ.4211 from the standard Renson® range, the installation of the mullions can be smoothly realised in most situations.

The corners LZ.4203 and LZ.4209 are installed on the back of the mullions using the clamps LZ.4202 or LZ.4211. These pieces are equipped with screw threads or a press-fit bolt. This ensures the corners can be attached at any height on the support profile.

The bracket LZ.4206 slides into the back of the support profiles and can move freely within these profiles. A mounting point with this bracket guarantees horizontal stability but allows vertical movements due to thermal expansion. The installation bracket LZ.4210 serves as a wall mounting or floor mounting. The necessary quantity and type of brackets depend on the properties of each type of mullion.

**Fixed mounting element for Linius mullions**

Technical drawings and 3D models of four fixed mounting elements:

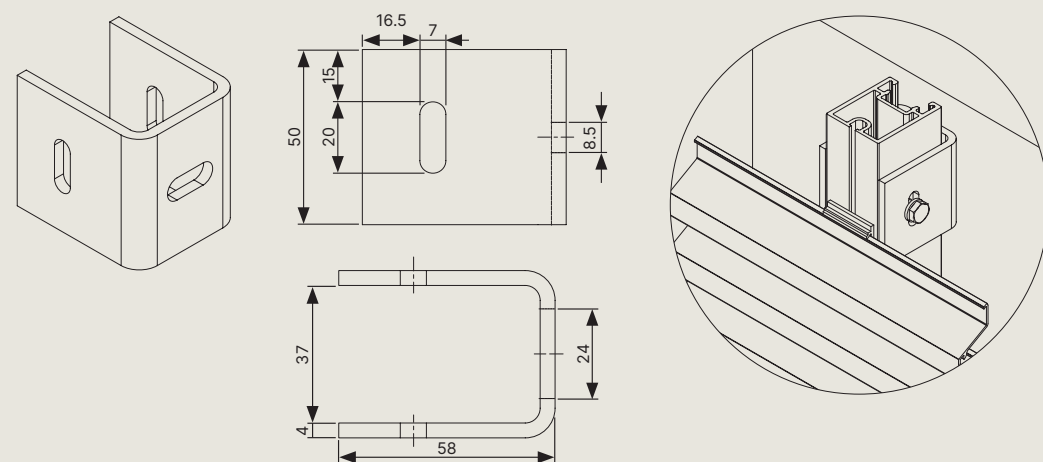
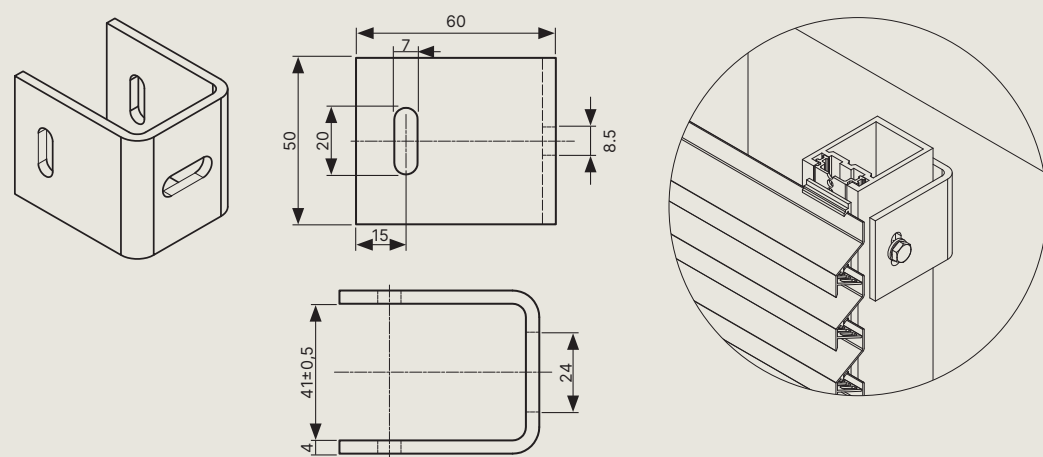
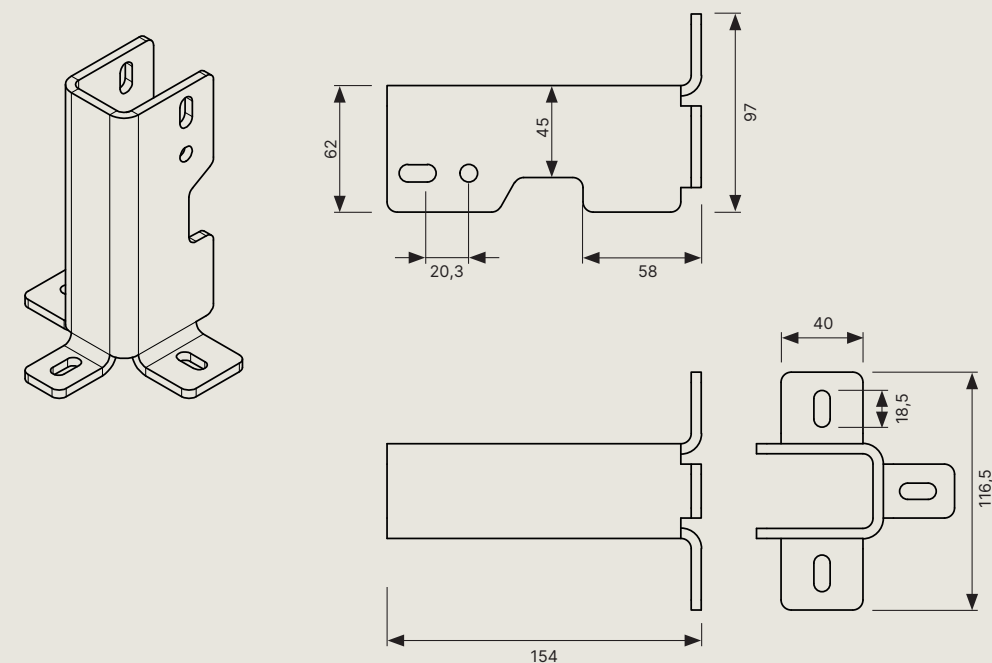
- Type LZ.4202:** A small bracket with dimensions 5, 30, 6, and 5. It is shown with an M6 screw.
- Type LZ.4206:** A larger bracket with dimensions 5, 50, 60, and 5. It is shown with an M8 screw.
- Type LZ.4211:** A bracket with a 45° angle, dimensions 15, 25, and 18. It is shown with an M8 screw.
- Type LZ.4220:** A bracket with dimensions 53, 70, 60, and 70. It is shown with an M8 screw.

**L-shaped mounting bracket LZ.4214 for Linius mullions**

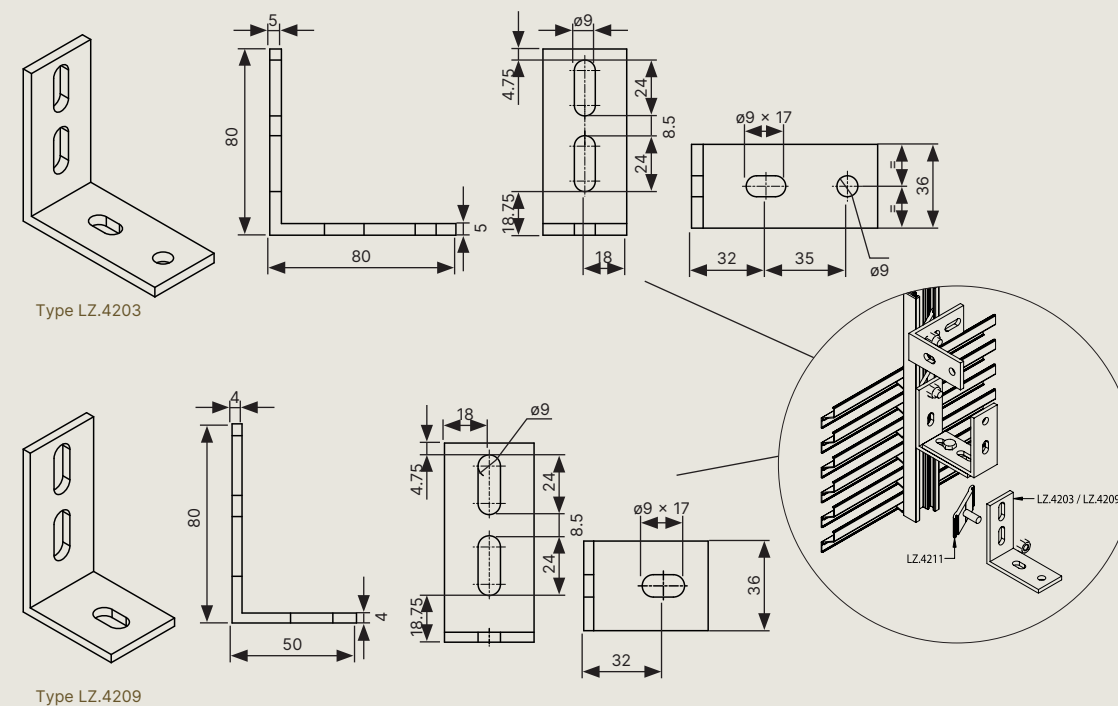
Technical drawings and 3D models of the L-shaped mounting bracket LZ.4214:

- Shooting zone:** Indicated by arrows pointing to the bracket's position on the wall.
- WALL:** Indicated by an arrow pointing to the wall.
- Dimensions:** 50, 45, 17.5, 36, 54.2, 49.2, 36, 17.5, 50, 45.
- Labels:** LZ.4211, LZ.4214.



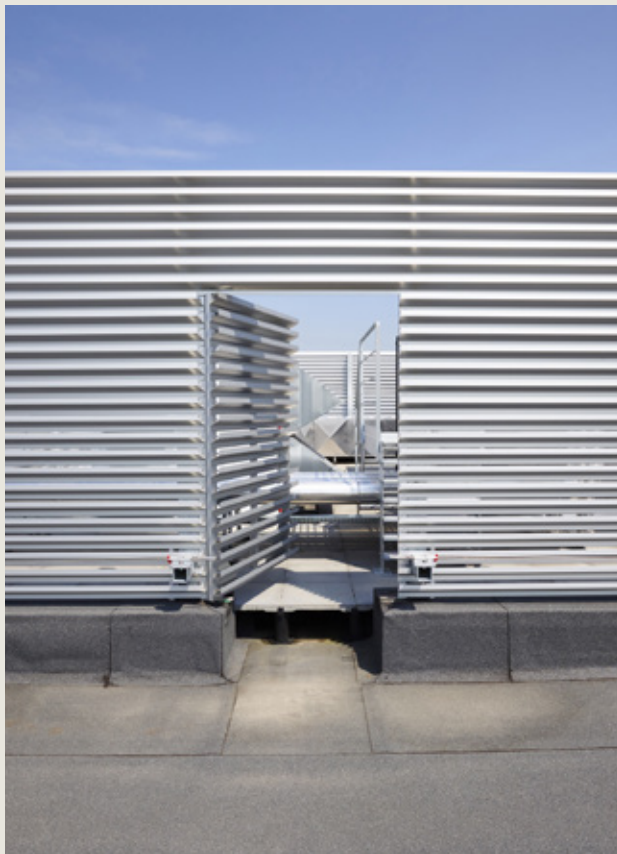
**U-fixation bracket LZ.4210 for Linius mullions****U-fixation bracket SD.086.11 for Sunclips mullions****U-shaped fixation bracket LZ.4215 for Linius mullions****L-shaped mounting element type LZ.4203 and LZ.4209 for Linius mullions**

If necessary, special mounting elements can be designed and supplied for a project by a Renson® approved supplier/installer.





# ACCESSORIES





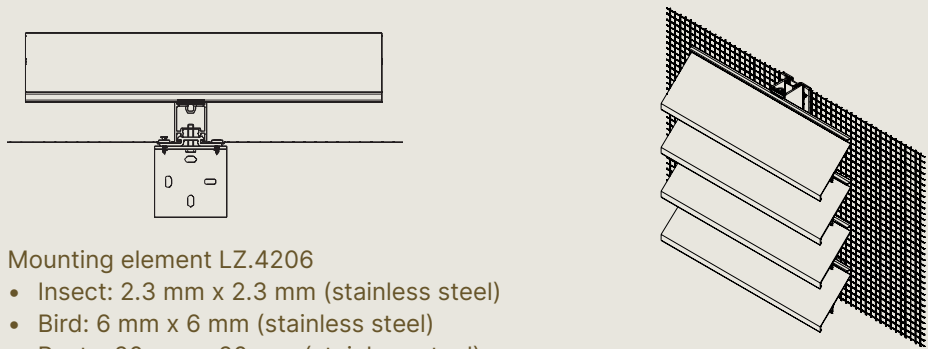
# MESH

Renson offers a wide range of mesh solutions to prevent insects, pests or birds from entering the building through the continuous louvre system. Different types of stainless steel 304L mesh in various dimensions are available in rolls. Optionally available in stainless steel 316 for coastal or aggressive environment applications.

## Mounting with auxiliary profiles

The mesh is attached to the back of the continuous louvre system with auxiliary profiles or directly on the flanges of support LD.0240. Alternatively, a blade type with integrated mesh L.033IM, L.050IM1 or L.050IM2 can be chosen.

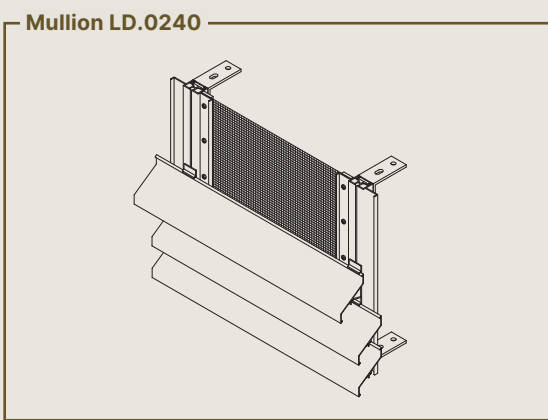
Mounting element LZ.4206



Mounting element LZ.4206

- Insect: 2.3 mm x 2.3 mm (stainless steel)
- Bird: 6 mm x 6 mm (stainless steel)
- Pests: 20 mm x 20 mm (stainless steel)

## Mounting directly to the flanges of mullion LD.0204”



# TOOLS

## 1. Securing tools

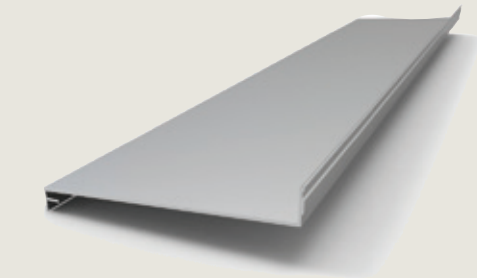
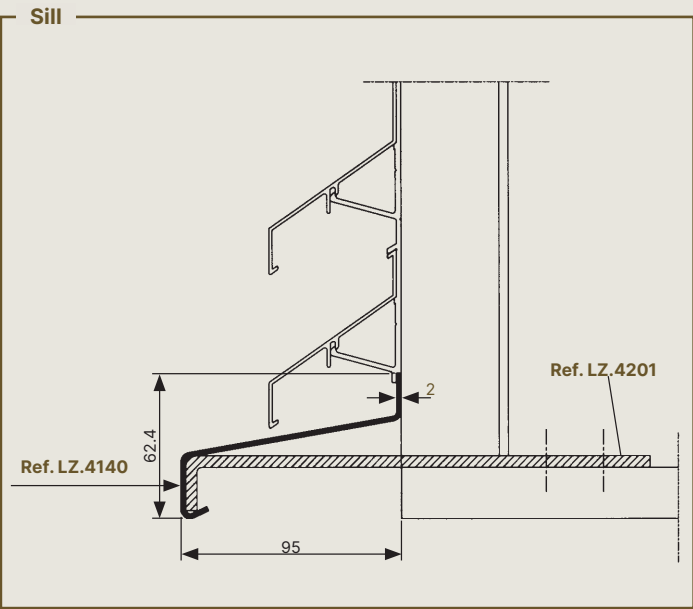
Under the influence of varying temperatures, the aluminium blades expand and contract back (thermal expansion). Displacement of the joints may occur over time as a result. To avoid this, it is best that the blades are secured. This is possible with the use of securing tools.

## 2. Unclipping tools

If blades need to be removed, this can be done more easily by using de-clipping tools.

# SILL

To drain rainwater outwards, a sill (type LZ.4140) is available in the continuous louvre system. Fixing element for a sill type LZ.4201. Instead of a sill, a frame around the continuous louvre can also be chosen. (See page 82 aluminium frames).





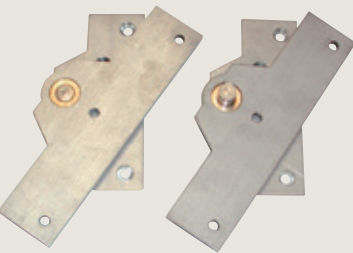
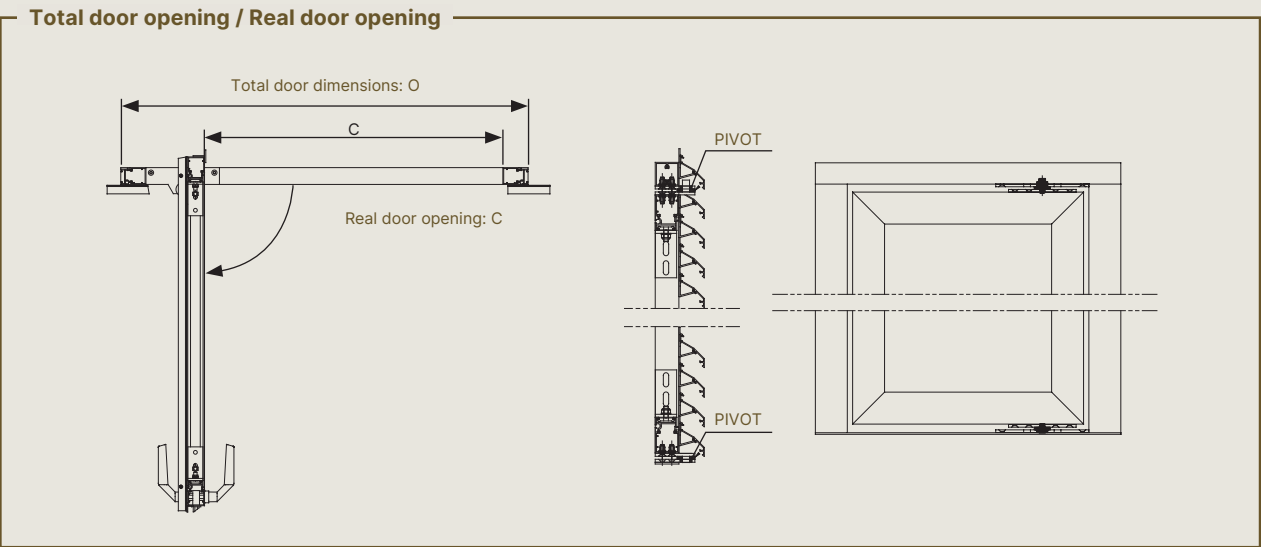
# DOORS

Renson offers customised single or double doors, opening inwards or outwards. In some cases, access behind a wall may be required, e.g. for maintenance of the (concealed) industrial installation. The doors are fitted with locks, pivots, door handles and a security chain.

## Difference (mm) between overall dimensions (O) and real door opening (C)

Type of blade:	L.033 / L.033.08		L.033V		L.050 / L.050HF		L.060AC/L.060HF		L.066 / L.075HF	
O - C (mm)	single	double	single	double	single	double	single	double	single	double
Outward opening	260	399	260	399	260	399	280	439	260	399
Inward opening	218	-	237	-	239	-	276	-	253	-

Type of blade:	L.066P		L.066V		L.120		L.150ACS	
O - C (mm)	single	double	single	double	single	double	single	double
Outward opening	260	399	260	399	310	499	540	959
Inward opening	253	-	246	-	288	-	365	-

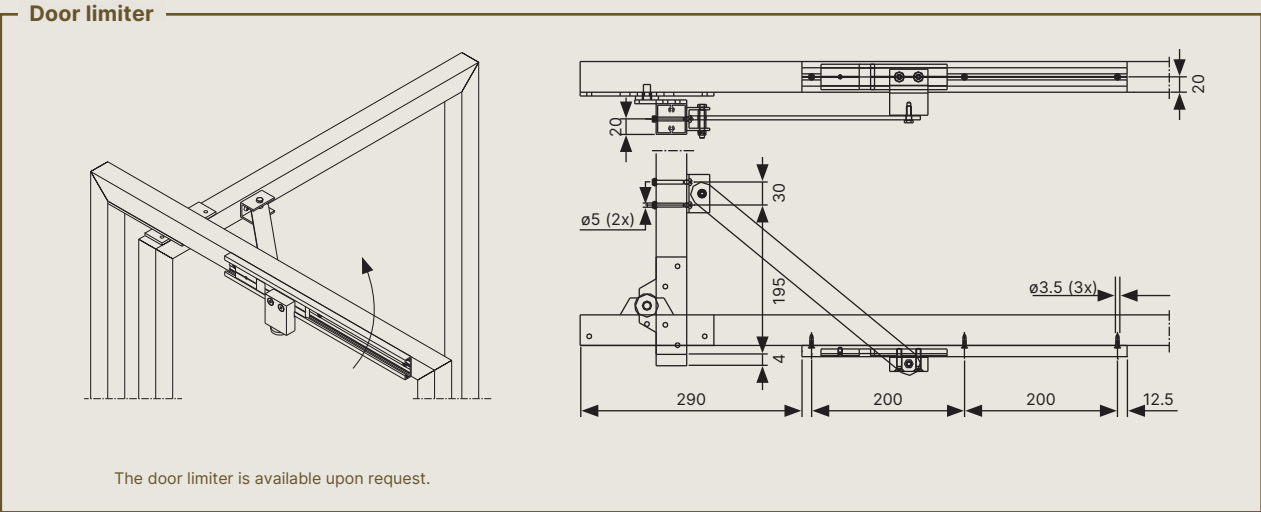
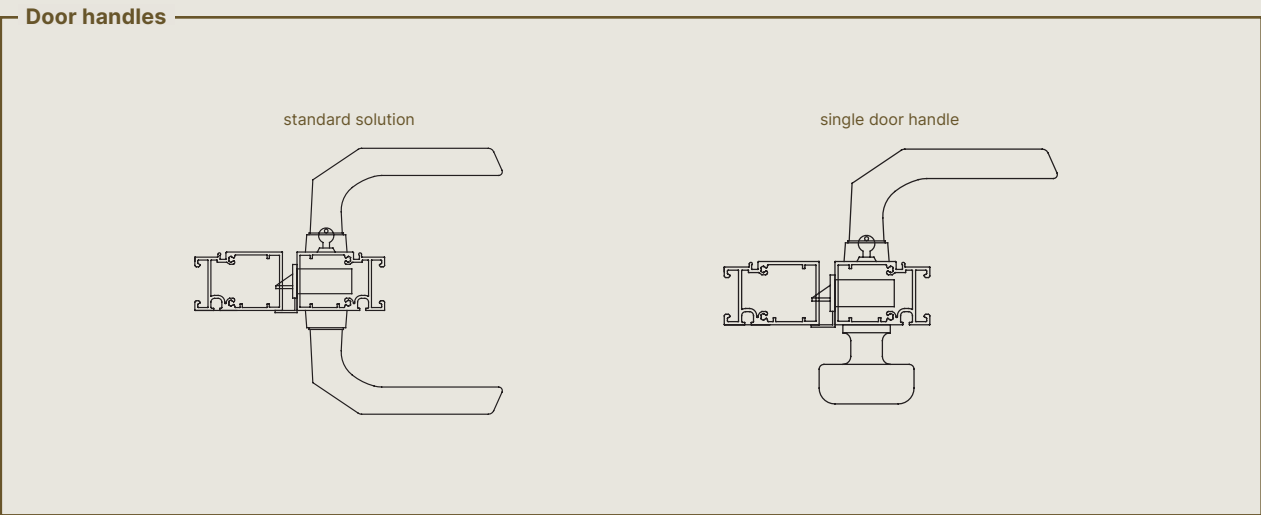


Be aware that the real opening (C) is smaller than the total door dimension (O). This is because of the pivot system. In turn, the position of the pivot system depends on the total load represented by the door. Renson can help you to determine the correct dimensions.

## DOOR HANDLES AND LOCKS

You have the choice to place none, a single, or a double door handle. If you do not choose a door handle, you can open and close the door with the key of the lock. The door handle can be in the form of a fixed knob or a standard version. It is important to specify the type of handle.

The Litto cylinder is the only approved option. Other proposals can be considered if the complete technical data is provided to Renson®. Other types are available upon request. Accessories such as door stoppers, storm chains, etc. are available upon request.

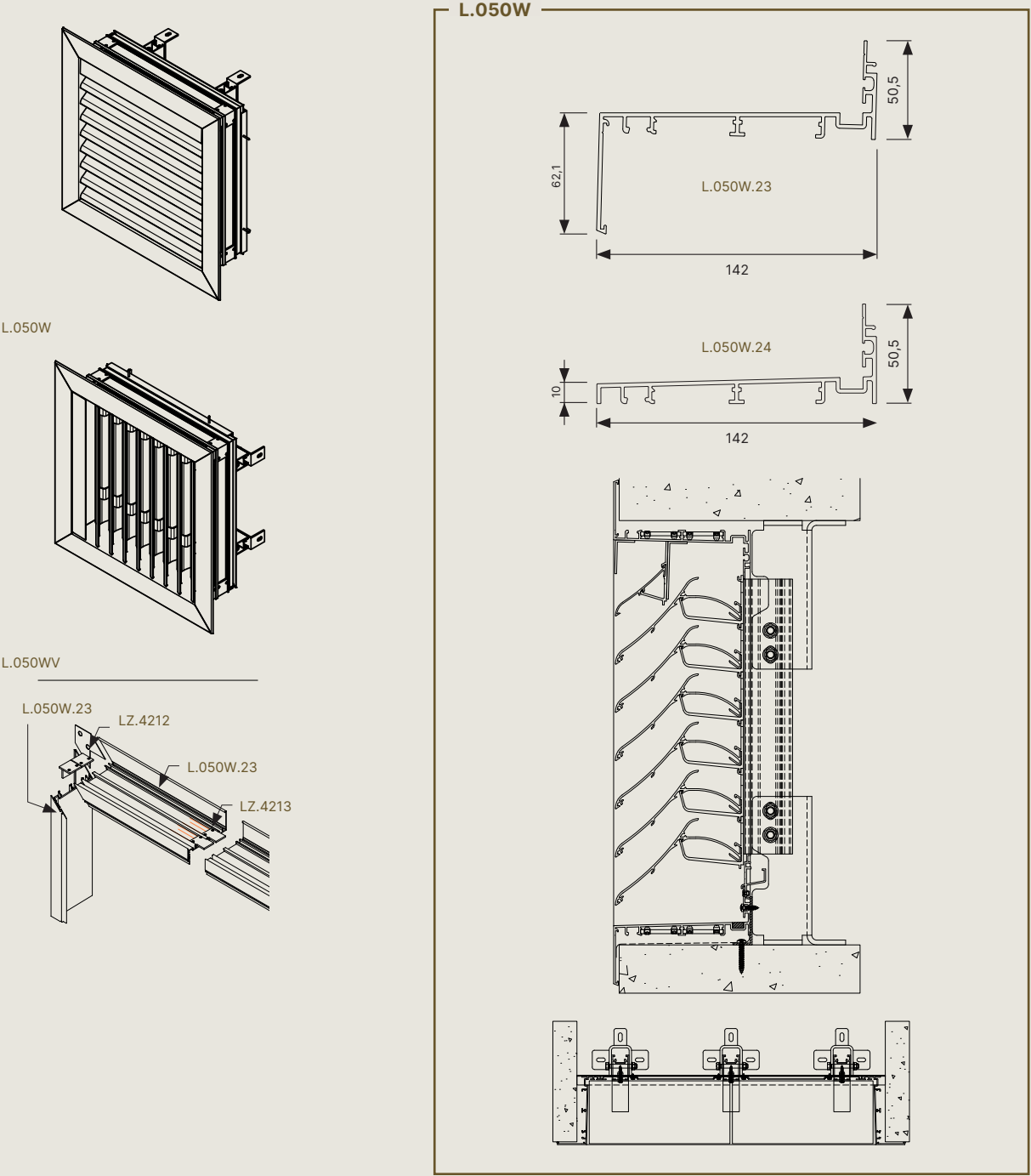




# ALUMINIUM FRAMES

## L.050W/L.050WV

The large free area system L.050W/L.050WV can optionally be equipped with frame profile L.050W.23 or L.050W.24, achieving ideal water drainage. This frame profile is placed horizontally and vertically around the wall opening in combination with the support profile LD.0460 belonging to this system. These support profiles LD.0460, with pre-mounted blade supports L.050W.11, are installed on structural mullions (from Renson® or structural underlying construction) and provided sideways with mesh, allowing incoming water to be drained back to the outside.





# SPECIFIC APPLICATIONS





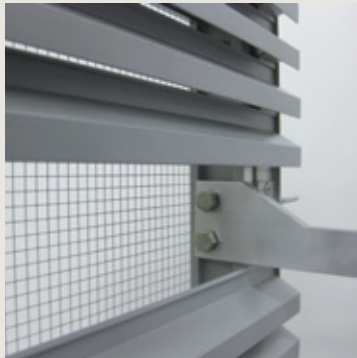
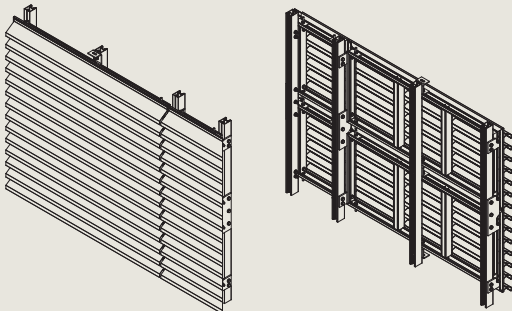
# LINIUS® CASSETTE SYSTEM

Every innovative product is a challenge in terms of design, technology, flexibility and quality! To save valuable installation time on site, Renson® designed the Linius cassette system. This system has the advantage that an entire continuous louvre system can be divided into modules that arrive pre-assembled on-site. Upon installation of the mullions on site, successive cassettes can be easily and quickly installed using a clasp system.

## BENEFITS

- Supplied as pre-assembled cassettes, so:
- Short installation time, thanks to already clipped-in blades and simple hook-in system
- Easy installation and alignment
- Easy installation in hard-to-reach places, e.g. large installation heights, accessible only from inside...
- Elements with invisible surrounding frames
- Removable cassettes, e.g. technology spaces
- Sloping elements possible
- Elements for mitred corners possible
- Aesthetic appearance, solid and stable system

Technical drawing



Lever



Lifting eye

Technical properties	
Material	Aluminium extrusion, alloy EN AW-6063 T66
Left	Surface treatment
Right, options	Anodised (20 micron) F1 Polyester powder coating (60-80 micron) in RAL colours
Insect and bird mesh	Stainless steel mesh wire rolled in and installed at rear
Technical properties	
Maximum dimension	4 m² per element – from 9 to 16 kg/m²
Classification	As desired according to grid
Blade type	Full Linius range
Installation	Via a lever for small cassettes Via lifting eyes for large cassettes and for large installation heights (crane)

Technical documentation available upon request.

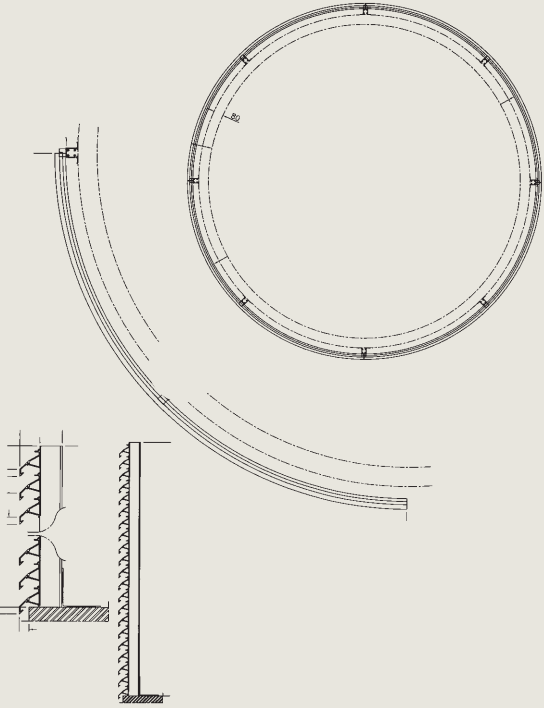
# CURVED BLADES

Contemporary designs often call for expressive shapes to give a building a distinctive appearance in terms of its linear aesthetics. Renson® has developed a curved solution that allows the architect to translate their creativity into a concrete continuous louvre system.

Blade types L.033.01, L.50.00 and L.050HF in a coated version can be curved, with a minimum outside radius of 800 mm. Blade type L.066.01 can be curved, with a minimum radius of 2000 mm. All these blades can be curved with either an outside radius (convex bending) or an inside radius (concave bending).

Such plans for a curved design must be submitted to Renson's technical department for approval before starting the construction process.

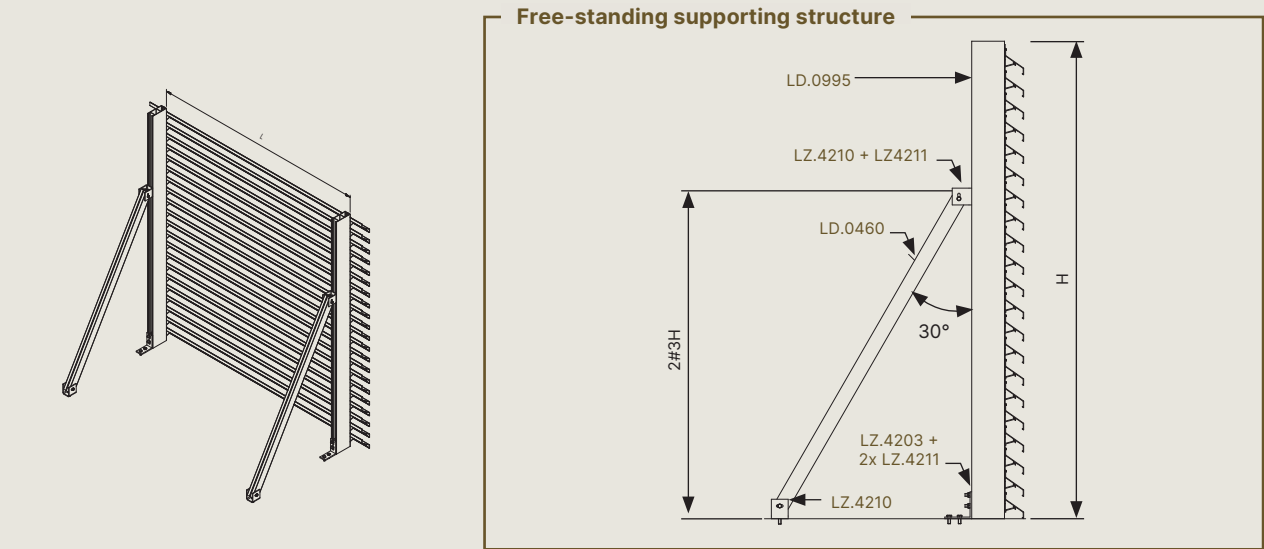
Technical drawing





# SINGLE SUPPORTING STRUCTURES

This system is intended for free-standing continuous louvre systems, with limited dimensions and/or wind loads where a self-supporting aluminium structure makes an additional primary steel structure unnecessary.

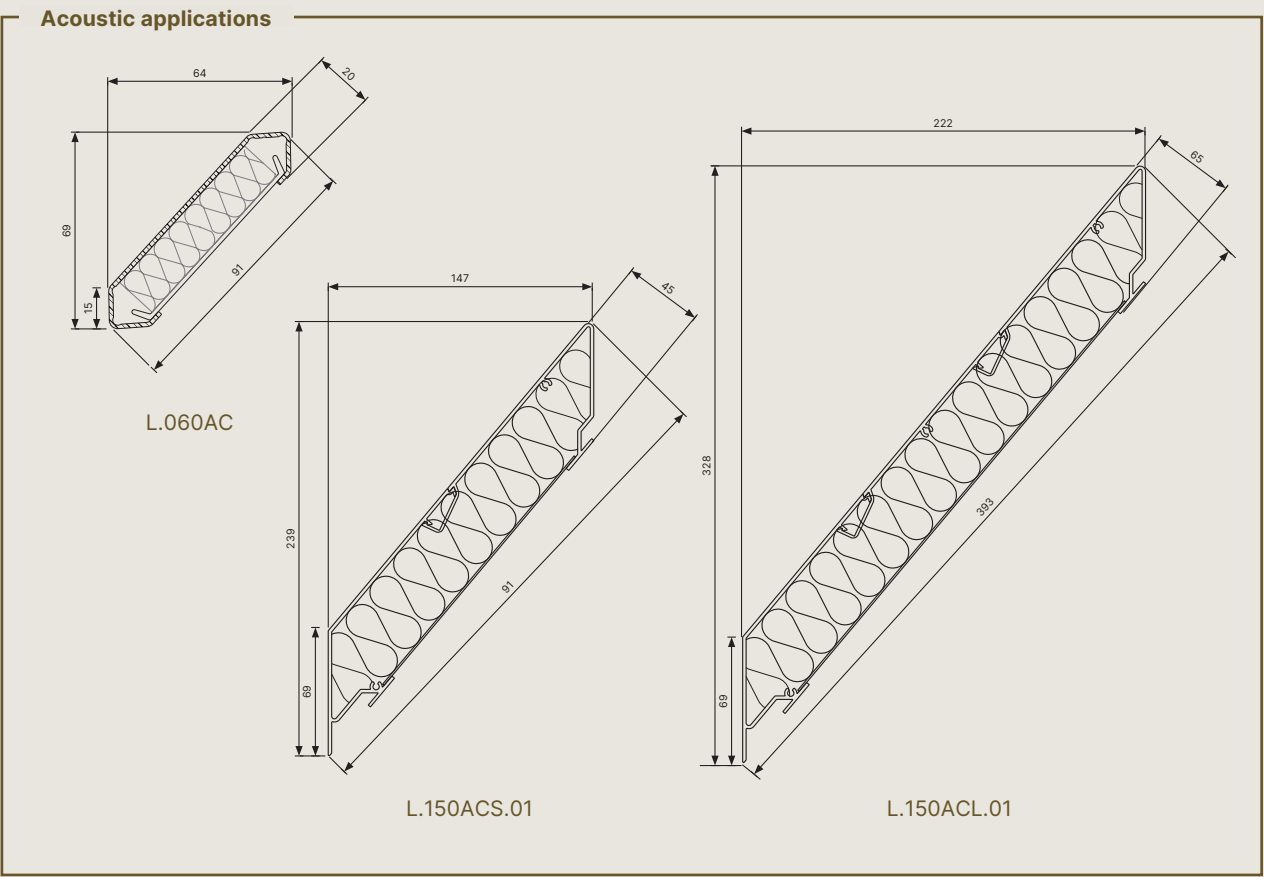


# ACOUSTIC APPLICATIONS

Noise pollution is an environmental pollutant. Renson is fully aware of this. Renson® offers a solution with an acoustic continuous louvre to avoid noise pollution and comply with existing regulations. The acoustic continuous louvre system will reduce noise and not hinder good ventilation. Renson®'s technical department is at your disposal to advise you on a suitable acoustic construction.

- The following factors are important in determining the ideal solution:
- the desired dB sound level
  - the sound level of the noise source
  - the distance and location of the noise
  - the required flow rate

The acoustic continuous louvre system consists of a supporting structure, acoustic blades and blade supports. The acoustic blade is filled with sound-absorbing, non-flammable mineral wool.





# MITRED CORNERS

Where a corner is formed, the blades are cut at the right angle in order to fit perfectly with the installation, providing a nice aesthetic finish.

## Possible solutions for corner installation

### Expansion

The mullions are placed as close to the corner as possible.

### Expansion joint included in mitre

The mullions are placed as close to the corner as possible.

### Welded corner

Only one mullion needed in the corner. For residential applications, blade L.033.01 and L.033CL

# SPECIAL SHAPES

Renson has long passed beyond the limits of simple rectangular design. In fact, the company is constantly inventing solutions for specific applications. A prime example of this is the integration of ventilation zones in a contemporary design.

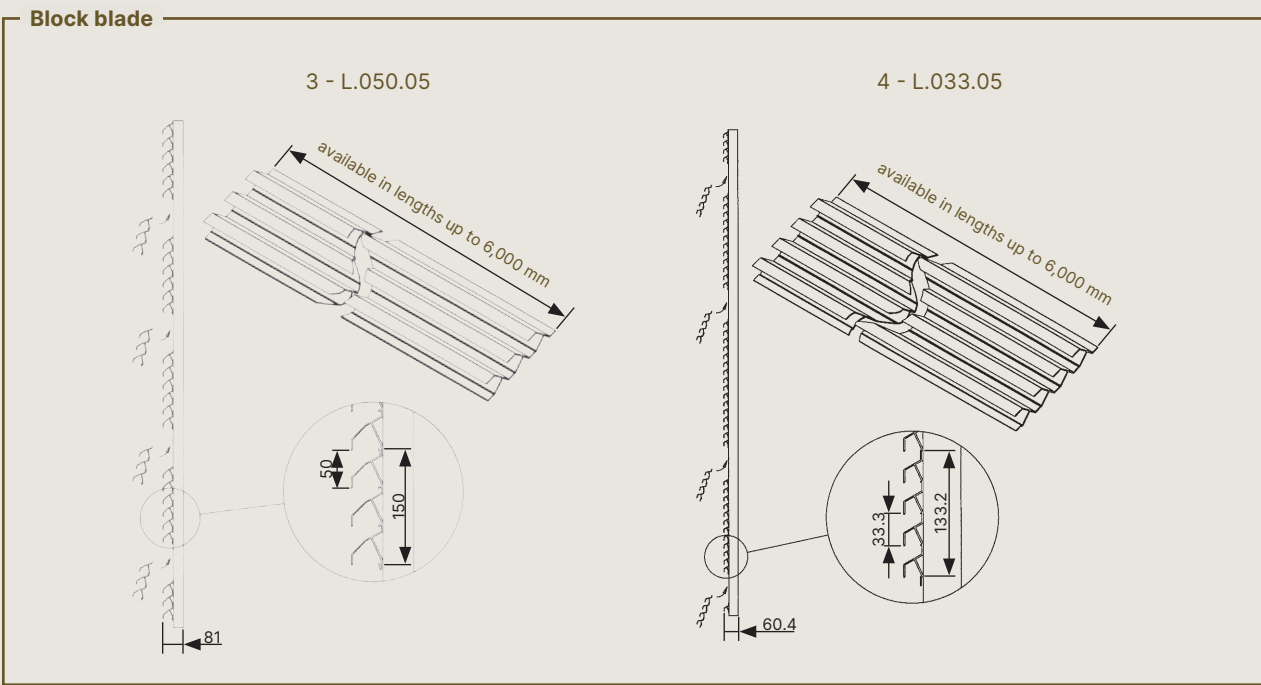


SPECIALITIES



# BLOCK BLADE L.033 AND L.050

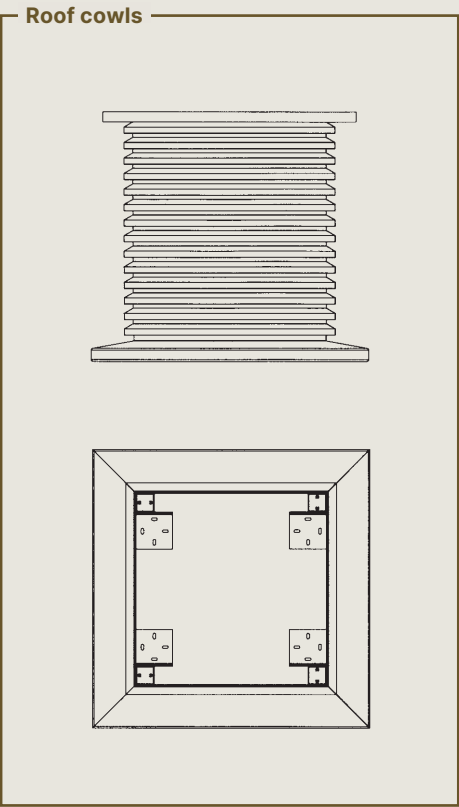
This type of blade offers quick, easy installation and is more vandal-resistant than standard aluminium continuous louvres. The blades can only be used if they are riveted or screwed to an existing full supporting structure (wall, metal sheets, etc.) The extruded profiles are only available in type L.033 or L.050. They consist of three (blade L.050.05 / -.07) to 4 (blade L.033.05 / -.07) blades extruded together. The profiles exist in punched (-.07) and non-punched (-.05) versions. The block blades can be used together with the standard blades.



# ROOF COWLS

A roof cowl is placed on the top of the roof of a building to hide industrial applications (e.g. chimneys) from view.

Renson can handle all aspects of the construction, including the cover plate and the sill.

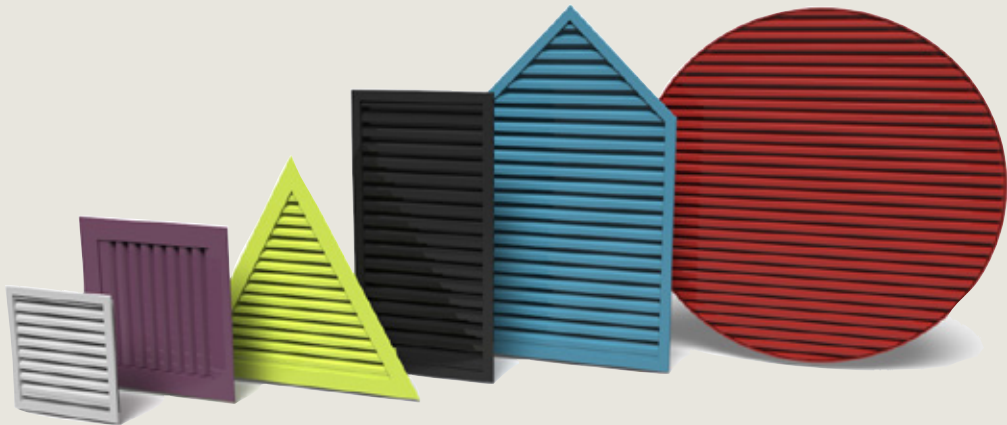






# LOUVRES

The blades of the Linius continuous louver system can also be used to create customised assembled louvres. These louvres are composed of frame profiles for recessed or surface mounting, filled with a blade type depending on the requirements in terms of airflow or aesthetics, and optionally equipped with stainless steel insect mesh. This means that the louvres and the continuous louver system can be matched to ensure a uniform appearance. Louvres are available in all shapes, dimensions and RAL colours, and in permanent or lockable versions. Renson also offers louvres with movable blades, sliding panels and fixed or removable surface-mounted louvres for windows.



System	Blade	Blade type	Pitch	Louvre
L.033	L.033.01	Standard blade	33.3 mm	411 ; 414 ; 414D ; 414VA ; 414THF ; 431 ; 432 ; 440/11
L.033.08	L.033.08	Storm blade	33.3 mm	491 ; 494
L.033V	L.033V	Blade that is safe from ingress and with complete privacy	33.3 mm	-
L.050	L.050.00	Standard blade	50 mm	421 ; 424 ; 440/21
L.050HF	L.050HF	Blade with good airflow	50 mm	481 ; 484
L.050W	L.050W	Water-repellent blade	50 mm	450
L.060AC	L.060AC	Acoustic blade	60 mm	445/86 ; 445/86GL
L.060HF	L.060HF	Blade with good airflow	60 mm	480 ; 483
L.066	L.066.01	Standard blade	66 mm	-
L.066V	L.066V	Blade that is safe from ingress and with complete privacy	66 mm	452 ; 452V
L.075HF	L.066.01	Standard blade	75 mm	457





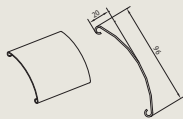
# AESTHETIC BLADES FOR FAÇADE CLADDING AND SUN PROTECTION

In addition to the range of continuous louvre systems, Renson also offers a whole range of aluminium profiles suitable for sun protection structures. One of these systems can be placed vertically and so serve as a continuous louvre system. This structure is mainly intended for purely aesthetic applications and/or sun protection.

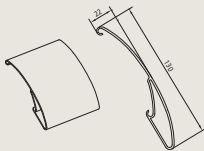


Explore the full range of Linius continuous louvre systems

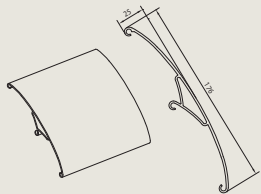
## Sunclips®



SE.096.01  
SE.096.02



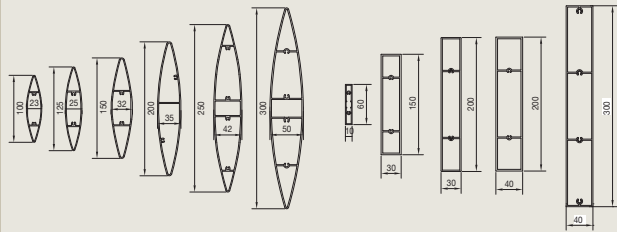
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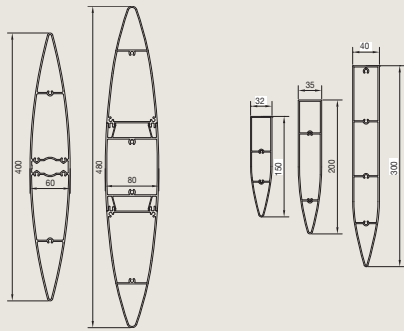
SE.176

## Icarus®

### Standard profiles



### Project profiles



Extrusion upon request. Minimum order quantity and delivery period to be agreed per project.



# GENERAL

## Taking care of materials and tools

To avoid deformation of the blades, it is very important to be careful and use a 'gentle hand' when unloading and storing the materials. Deliveries on pallets should never be stacked more than two high, to minimise the risk to others on site.

To prevent damage during storage, handling or delivery, the following rules must be observed:

- The products must preferably be stored indoors.
- In open storage outside, remove the packaging to prevent water ingress and possible heating.
- Never place the elements directly on damp ground.
- Sufficient ventilation of the elements must be ensured during storage.
- Contamination by mortar, cement or lime must be removed immediately with plenty of clean water.

Ensure that nearby materials or installations do not accidentally bump into the boxes and cause damage. The components are packed in wooden crates to protect them from damage. Packages and boxes are labelled with the correct contents. The label includes a barcode that refers to the internal computer system. Where possible, the link is made with the production drawings, which can be sent with the shipment.

Deliveries are planned so that the right material is in the right place in the preferred order of use!



## INSTALLATION OF DOOR ELEMENTS

- For transport reasons, the door leaf may be delivered separately for large or double doors. Assembly and disassembly of the door leaf: see installation instructions.
- To ensure that the blades of the continuous louvre and the blades of the door run in line and do not disturb the linear view of the continuous louvre system, it is advisable to first place the door element, and only afterwards to install the support profiles next to the door element.
- To ensure the functionality of the door, it must be installed perfectly perpendicular in both vertical directions!
- It is also very important that the bottom bar of the fixed frame (and the pivot in particular) is sufficiently supported.
- The mounting is carried out using Renson® mounting elements and anchoring materials calculated and supplied by the installer.

## INSTALLATION OF INSECT, BIRD OR PEST MESH (OPTIONAL)

- Stainless steel mesh wire with 2.3 × 2.3 mm, 6 × 6 mm, 10 × 10 mm or 20 × 20 mm mesh (delivered in a roll). The mesh wire is attached to the substructure or support profiles.
- Assembly proposal: first attach an angle profile to the mullion and then screw the wire with a flat strip to the angle profile.

## INSTALLATION OF THE CONTINUOUS LOUVRE SYSTEM

### Positioning and aligning the support profiles

- In planning and before ordering the continuous louvre system, it must be taken into account that:
  - The maximum allowed distance between the support profiles is a function of the blade and support profile type and the local wind load.
  - The vertical free span between two mounting points is a function of the support profile type, the free distance between two support profiles, and the local wind load.For additional information, see details in the Renson® continuous louvre documentation.
- Align the support profiles with pre-mounted blade supports sideways so that the level of the blade supports in height corresponds with each other. Use suitable tools for this, e.g. laser, cord, etc. If the level of the blade supports differs in height, the blades do not run evenly and the continuous louvre system loses its linear appearance. In case of large differences, the blade can no longer be clipped into the blade support.

## CLEANING FREQUENCY

To the extent that the aluminium elements are normally rained on and placed in a neutral atmosphere, they should be thoroughly cleaned once or twice a year. Aluminium parts placed in an urban or industrial atmosphere should be thoroughly cleaned at least twice a year. At the coast and in areas with heavily polluted atmospheres, this number should be increased. The cleaning of those parts that are not subject to normal rainfall must be carried out more frequently.



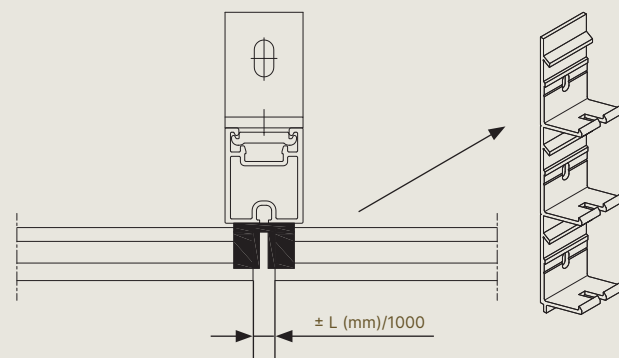
## Installation of support profile at expansion joint

For the planning and installation of the continuous louvre and the expansion joint, the thermal expansion of aluminium must always be taken into account. The thermal expansion coefficient of aluminium is 0.024 mm/mK (this approximately corresponds to an expansion of 1 mm/m with a temperature increase of 40° C). With significant temperature fluctuations, it is not excluded that this harmless thermal expansion causes cracking noises.

To avoid this as much as possible, it is important that the support profiles on which the blades are mounted are installed in line and perfectly perpendicular. It is also recommended to work with smaller blade lengths so that the total expansion per profile remains limited. Finally, the choice of powder coated versions also reduces this risk of expansion noise. To not hinder the expansion of the blades after installation, two possible execution methods can be chosen at the blade joints:

### Option 1: Installation of a support profile with double blade support for two blades. (type L.XXX.12)

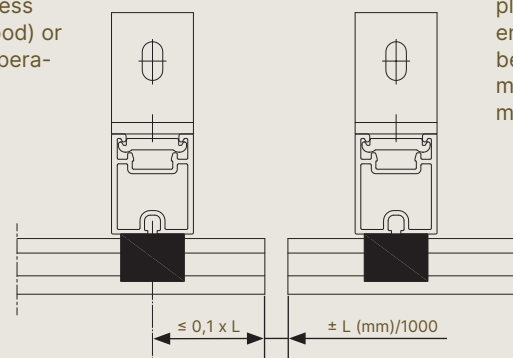
Option 1



### Option 2: Installation of two separate support profiles with pre-assembled standard blade supports. (type: L.XXX.11)

Option 2

This variant is particularly recommended for installation on less rigid substructures (e.g. wood) or in places with extreme temperature differences.



The support profiles must be placed as close as possible to the end of the blade. The distance between mullion and blade end must not exceed 10% of the permitted free span of the blade.

! Further and more detailed information on installation are available on our Renson Professional Portal at [renson.net](https://renson.net)





Galápagos





