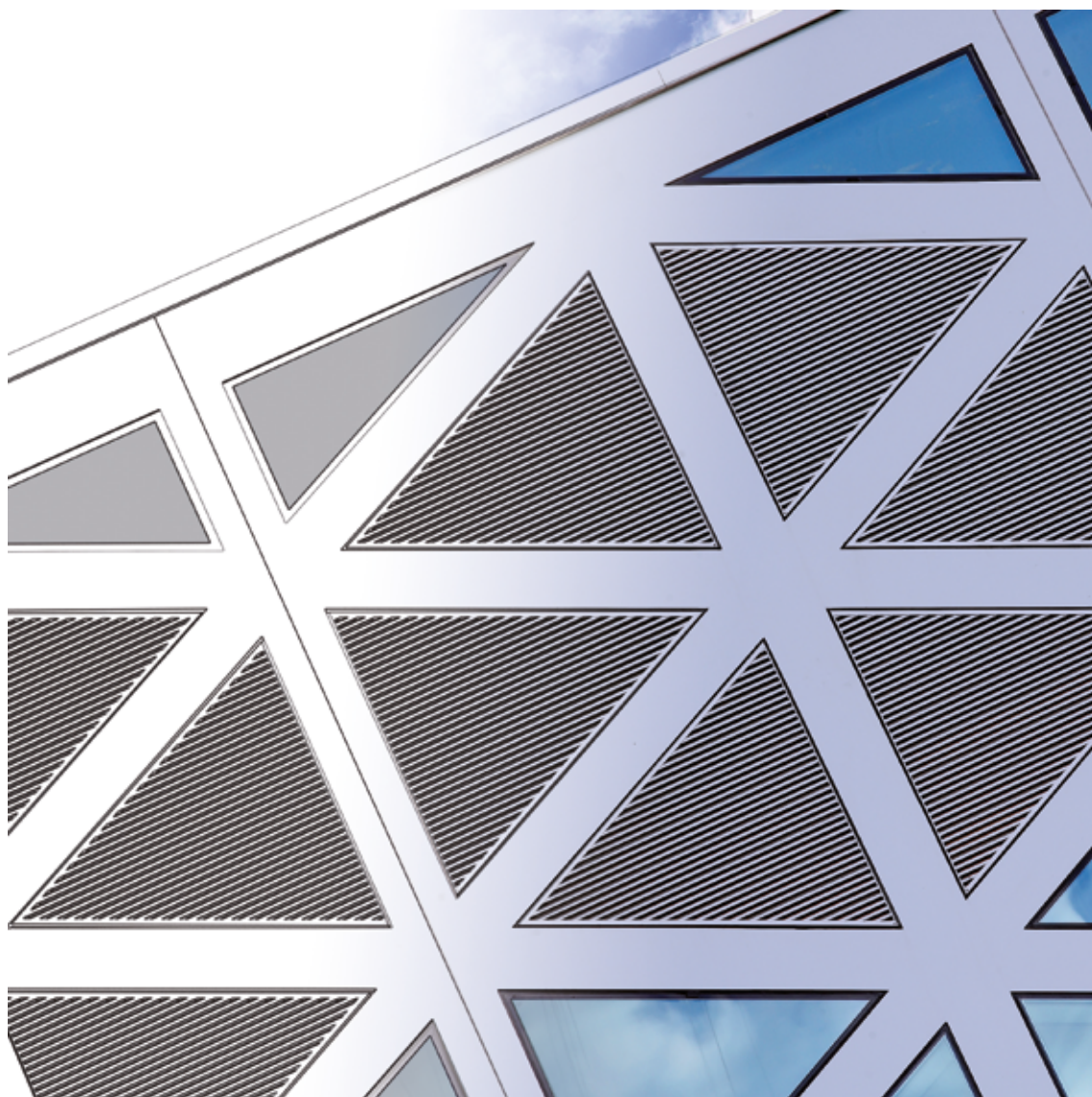


# LOUVRES





## OUR MISSION

Creating healthy spaces



Paul Renson

Renson® specialises in ventilation, sun protection, and terrace coverings. With experience dating back to 1909, and a team of around 1000 employees, we have been developing solutions aimed at achieving a healthy and comfortable living and work environment for the consumer. In doing this, we take into account energy-efficiency requirements and the use of renewable energy, as well as maintenance friendliness. We develop innovative products and systems, and offer total solutions that can make each house a healthy and comfortable home." This is what underlies our baseline, 'Creating Healthy Spaces'.

"In addition, we also think of the aesthetic value of each building. Thus, our ventilation and sun protection systems can be integrated almost invisibly. Our terrace coverings and aluminium blades for façade cladding provide clear accents, offering added value to the architecture. Inside, we ensure that doors are integrated invisibly without conspicuous frames or visible hinges."

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**Discover how Renson® products can optimise the comfort experience within a contemporary design.**

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*"We not only develop innovative solutions, but we also think of ways to contribute aesthetic added value to each building."*



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# GENERAL

## MATERIAL

All louvres in this brochure have been manufactured from aluminium profiles **AlMgSi 0,5** (according EN 12020-2).

- **Light, strong & durable**

Aluminium is a very light metal, about one third of the weight of steel. This results in a lighter product, more efficient use of transport, high loading capacity, lower material usage...

- **100% recyclable**

Aluminium is 100% recyclable without loss of quality. The energy used to fuse the product takes only about 5% of the energy used to produce the original product.

Did you know that 75% of the produced aluminium is still circulating the world?



## FINISHING

By nature, aluminium generates a natural oxide coating and it is very corrosion resistant. And aluminium has resistance against UV radiation from sunlight and can easily resist to temperature variations. Various types of surface treatments improve its corrosion resistance even further.

- **Anodisation:** A layer thickness of 20 microns is applied as standard. For applications in an aggressive atmosphere, a layer thickness of 25 microns is recommended. Anodisation is usually done using a natural shade of grey [F1], but can also be done in a limited number of other colours [Euras]. Colour differences are possible with anodisation, both within the same surface and between different pieces. These differences mainly occur with colour anodisation.

- **Powder-coating:** The choice of a very wide colour palette and the minimal risk of colour differences are two important reasons for choosing powder-coatings. Powder-coating is standard with a layer thickness of 40 microns. Depending on the environment, different pre-treatments can be applied:

- Standard pre-treatment

Correct pre-treatment of the aluminium is essential for optimum quality. This pre-treatment is carried out in accordance with the applicable directives and consists of a sequence of staining, degreasing, rinsing, and the application of a conversion layer.

- Pre-treatment conform Seaside Quality A

We recommend a pre-treatment in accordance with Seaside Quality A for applications in aggressive environments [e.g. coastal regions, in industrial atmospheres, etc.]. This halves the risk of filiform corrosion under the paint in comparison with standard coated profiles.

- Pre-treatment before anodizing

For applications in highly aggressive environments [e.g. coastal regions, on the coastline, in industrial atmospheres, etc.], we recommend pre-treatment before anodizing. This halves the risk of filiform corrosion under the paint in comparison with standard coated profiles.

- **Standard colours**

Some louvre types are in stock in standard dimensions and colours. The available models for the relevant products are listed in the brochure.

- **Gloss level**

Most powder colours are available in textured, matt, or glossy, where

- Glossy: gloss level 70%

- Matt: gloss level 30%

## MAINTENANCE

Besides cleaning, aluminium does not require any maintenance or repair of its surface finishing. Details about the necessary cleaning frequency and methods can be found in the warranty terms and conditions.

## WARRANTY

Renson gives a basic 10-year warranty on all louvres. The gloss of powder coated parts is limited to 5 years. Motors are limited to 2 years. More details and modalities can be found in the warranty terms and conditions.

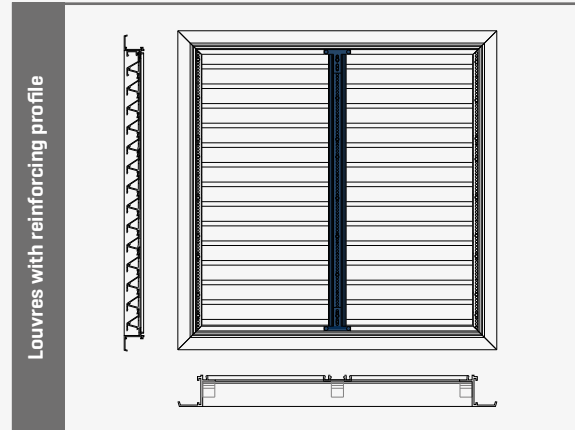
## PACKING

Louvres will be packed in a transparent plastic foil. In case the louvre is larger than 500 mm on one side, expanded polystyrene will be added on the framework as protection. For very large louvres, an additional cardboard packaging ensures the correct protection.

# GENERAL

## LOUVRE WITH STRENGTHENING SUPPORT

Remark: a strengthening support will be provided for a louvre wider than 700 mm.



## CONSTRUCTION TECHNICAL CHARACTERISTICS DIMENSIONS

- Surface-mounted louvres, flangeless louvres, and glazed-in louvres are characterised by their overall width and height dimensions.
- Built-in louvres are characterised by the overall width and height dimensions of the section to be built in. The dimensions of the opening in which these louvres are installed must always be 10 mm larger than the louvre dimensions.





# ONLINE LOUVRE SELECTOR

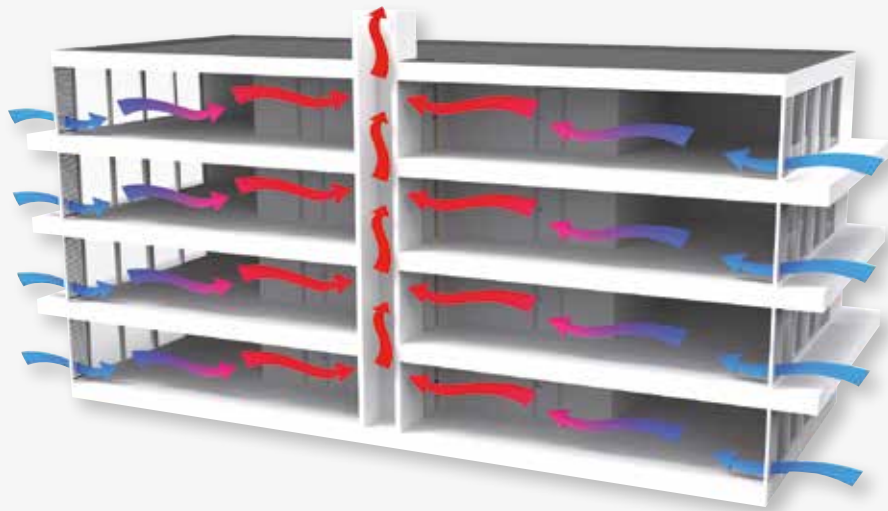
How to select the correct louvre for your application?

## WEBSITE WWW.RENSON.EU

On the website [www.renson.eu](http://www.renson.eu) you can find an overview of all louvres including technical drawings, leaflets and product summaries. On this website, you can quickly find the most suitable louvre for your application, thanks to the extensive possibilities of searching, filtering, and calculating. You can also download the results of your selection, contact one of our specialists for additional advice, or find a dealer in your area.

The screenshot shows the Renson website's online louvre selector interface. The browser address bar displays 'www.renson.eu'. The navigation menu includes 'jobs', 'Contact us', 'Press', 'Professionals', 'Worldwide', and a search icon. The main navigation bar features 'Solar shading', 'Ventilation', 'Wall cladding', 'Outdoor', and 'News', along with a 'Find Your Dealer' button. The 'Products' section is active, showing a search bar and buttons for 'AIRFLOW CALCULATION' and 'Save Results'. The 'Filters' sidebar on the left includes categories like 'Ventilation (199)', 'Solar shading (65)', 'Outdoor (15)', and 'Wall cladding (2)'. Under 'Type of product', 'Louvres (83)' is selected. The 'Louvre type' section lists options such as 'Built-in louvre (36)', 'Glazed-in louvre (11)', 'Door louvre (7)', 'Floor louvre (6)', 'Surface-mounted louvre (5)', and 'Linear bar louvre (4)'. The 'Physical free area', 'Water resistance at 0 m/s', 'Noise reduction', and 'Depth to fit' sections are also visible. The 'RESULTS (83)' section shows a 'Type of product - Louvres' filter and a 'Sort by: Recommended' dropdown. Two product cards are displayed: '411' (Built-in vent normal finish with good water resistance) and '431RC2' (Burglar-resistant build-up vent class RC2). A blue banner at the bottom right says 'We are happy to assist you with the selection of the right louvre.' and includes an 'ASK FOR ADVICE' button.

# INTENSIVE VENTILATION



## INTENSIVE VENTILATION – NIGHT COOLING

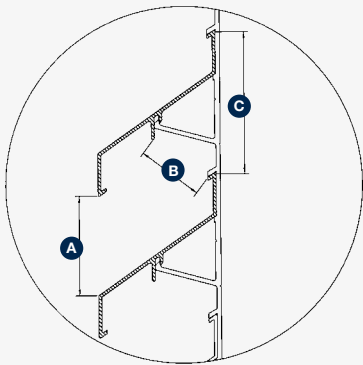
The building will cool down by ventilating with large flows of natural air at night. The indoor climate will remain stable during the day given that the building will warm back up. This can be achieved by using specific louvres. Renson® surface-mounted louvres are recommended for supply, as these can be mounted easily on a [tilt and turn] window. These louvres are available in 3 variants:

- **Type 431**
  - Excellent rain-repellant properties (class A: less than 1% water infiltration at high wind speeds)
  - Maximum airflow (physical free area: 50%)
  - Equipped with stainless steel insect screen
- **Type 432**
  - Same properties as type 431
  - Removable: This louvre can be removed in winter months, when night cooling is not used. In combination with a tilt and turn window with glass insert, this provides extra light in this darker period.
- **Type 431RC2**
  - Same properties as type 431
  - Burglar-resistant class 2: Because the night cooling louvres are typically open when there is little or no surveillance, burglar resistance of the louvres is essential. Class RC2 is the most commonly used burglar resistance class for homes. Only buildings with an increased risk of burglary are often subject to stricter requirements.
  - Fall-proof: Louvres for night cooling are often fitted down to ground level. When this is used on an upper storey, it is important that the louvre offers fall safety.

The same louvres can be used as extraction, preferably in opposite façades. The extraction can also be achieved by air shafts in the building which are finished at the top with a type 440 roof hood.

# SELECTION CRITERIA

## AIR PERMEABILITY



### GEOMETRIC TERMS FOR LOUVRES

- **Visual free area** = determined by the ratio of the visual distance between two blades [A] to the blade pitch [C].
- **Physical free area** = determined by the ratio of the smallest gap between two blades [B] to the blade pitch [C]. Owing to peripheral effects and assembly, a maximum deviation of 5% must be considered.
- **Remark: The top and bottom blades are not taken into account in the two free area definitions.**
- All properties of the louvres can be consulted or calculated using the free software on our website.

### AIR TECHNICAL TERMS FOR LOUVRES

- **K-factor** = This value describes the ratio between the flow rate through the louvres and the pressure drop across the louvres related to this and depends on the direction of the airflow. The lower the K value, the higher the airflow.
- **C-coefficient** = flow coefficient. This value is a measure of the ease with which air flows through the louvre. The higher the C value, the higher the airflow. The coefficient depends on the direction of the airflow:  $C_e$  = air supply,  $C_d$  = air extraction.  $C = 1 / \sqrt{K}$

## NOISE TECHNICAL TERMS / NOISE REDUCTION

- **$R_w [C; C_{tr}]$**  = the sound attenuation index of the louvre. This is a measure of the sound attenuation of a louvre, expressed in dB. This value is independent of the dimensions. A louvre of 10 m<sup>2</sup> lets through 10 dB less noise than a louvre of 1 m<sup>2</sup> with the same  $R_w$  value.
- **$D_{n,e,w}$**  = the sound insulation of the louvre. This is a measure of the sound attenuation of a louvre, expressed in dB. This value depends on the dimensions and is mainly used for small building components. A louvre with a  $D_{n,e,w}$  value = x dB lets through as much sound as a wall of 10 m<sup>2</sup> with a  $R_w$  value = x dB.
- **C** = spectrum correction for pink noise. This value is usually negative and is added to the  $R_w$  or  $D_{n,e,w}$  value when mainly the treble has to be muted.
- **$C_{tr}$**  = spectrum correction for traffic noise. This value is usually negative and is added to the  $R_w$  or  $D_{n,e,w}$  value when mainly the bass has to be muted.
- **dB** = measure of sound intensity.
- **Frequency** = the pitch expressed in Hertz [Hz].

# WATERTIGHTNESS TESTS

## RAIN-REPELLANT

Renson® louvres are subjected to European testing [according to EN 13030: 2011] by the internationally accredited corporation BSRIA Ltd. During these tests, a louvre of 1m<sup>2</sup>, equipped with stainless steel mesh is exposed to downpours at a rate of 75 litres per hour and a wind speed of 13 m/second. The classification is based on the obtained results, i.e. the quantity of water infiltrating through the louvre.

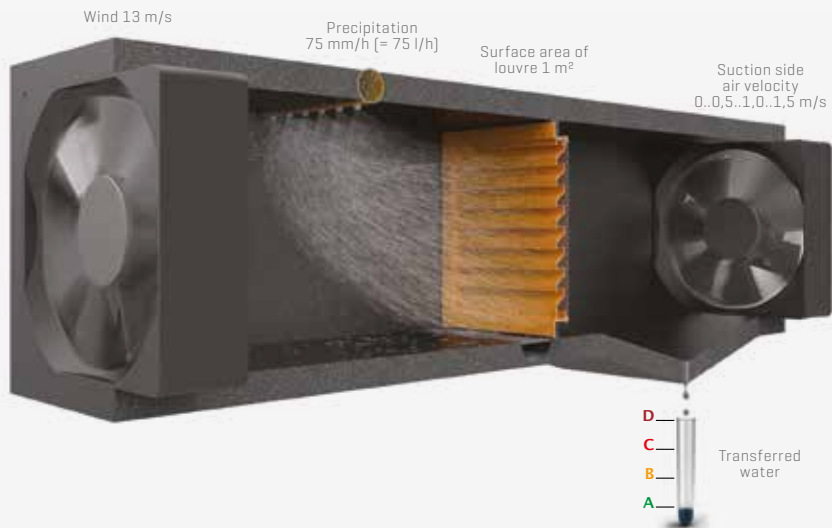
**Attention:** The “air speed” reference always indicates the air speed at the suction side. If a louvre is assigned to a watertightness, the class suction side air velocity has to be indicated. The outside wind speed is fixed to 13m/s and is therefore never mentioned.

**Remark:** In case a weatherable louvre is used in extreme weather conditions Renson® advises to seal the seams of the frame. Additionally, applying a water channel will guarantee an even better weatherability.



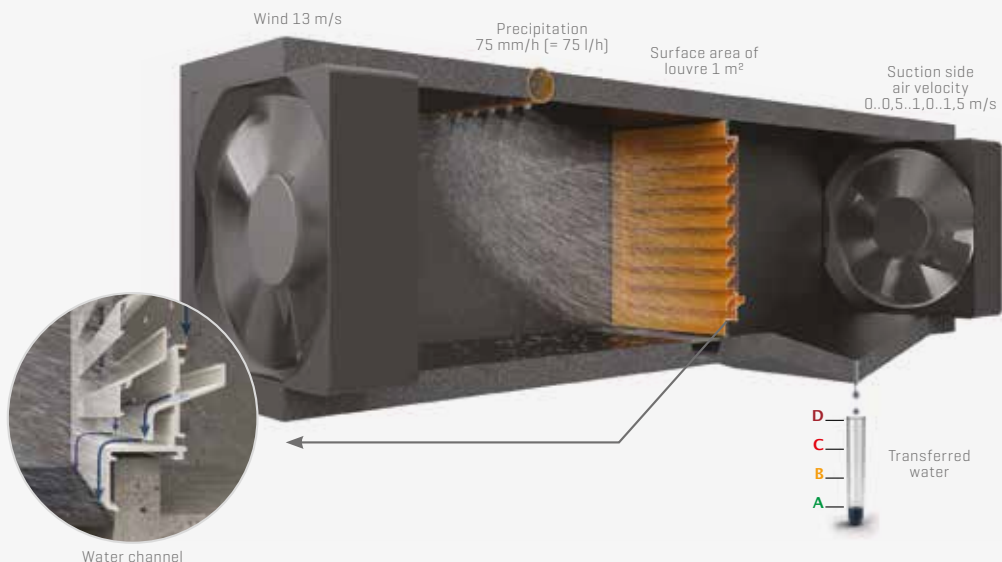
### WITHOUT WATER CHANNEL

Test on a standard type 411 louvre



### WITH WATER CHANNEL

Test on a type 411 louvre with water channel



	Class	% watertightness	Air resistance class
Very good rain protection	<b>A</b>	100 - 99 %	$C_e \geq 0,4 : 1$
Good rain protection	<b>B</b>	99,9 - 95 %	$C_e : 0,3 - 0,399 : 2$
Average rain protection	<b>C</b>	94,9 - 80 %	$C_e : 0,2 - 0,299 : 3$
Low rain protection	<b>D</b>	< 80 %	$C_e < 0,2 : 4$

Type of louvre	Insect screen [mm]	Suction air speed [m/s]	With water channel		Without water channel		Suction air resistance Class
			Class	%	Class	%	
<b>450</b> <b>L.050W</b>	2,3 x 2,3 mm	0,0	<b>A</b>	100			2
		0,5	<b>A</b>	100			
		1,0	<b>A</b>	100			
		1,5	<b>A</b>	100			
		2,0	<b>A</b>	99,9			
		2,5	<b>A</b>	99,9			
		3,0	<b>A</b>	99,2			
<i>Standard equipped with water channel</i>							
<b>450V</b> <b>L.050WV</b>	2,3 x 2,3 mm	0,0	<b>A</b>	100			2
		0,5	<b>A</b>	99,9			
		1,0	<b>A</b>	99,9			
		1,5	<b>A</b>	99,9			
		2,0	<b>A</b>	99,5			
		2,5	<b>A</b>	99,6			
		3,0	<b>A</b>	99,7			
		3,5	<b>A</b>	99,5			
		4,0	<b>A</b>	99,1			
		<i>Standard equipped with water channel</i>					
<b>475/475GL</b> <b>L.075W</b>	2,3 x 2,3 mm	0,0	<b>A</b>	99,2			2
		0,5	<b>B</b>	97,8			
		1,0	<b>B</b>	95,9			
		1,5	<b>C</b>	90,9			
		2,0	<b>D</b>	< 80			
<i>Standard equipped with water channel</i>							
<b>452V</b> <b>L.066VV</b>	2,3 x 2,3 mm	0,0	<b>A</b>	100			4
		0,5	<b>A</b>	100			
		1,0	<b>A</b>	100			
		1,5	<b>A</b>	99,7			
		2,0	<b>C</b>	80,2			
		2,5	<b>D</b>	< 80			
<i>Standard equipped with water channel</i>							
<b>452</b> <b>L.066V</b>	6 x 6 mm	0,0	<b>A</b>	100			4
		0,5	<b>A</b>	99,9			
		1,0	<b>A</b>	91,6			
		1,5	<b>B</b>	95			
		2,0	<b>D</b>	< 80			
<b>491/494</b> <b>L.033.08</b>	6 x 6 mm	0,0	<b>A</b>	100			4
		0,5	<b>A</b>	99,7			
		1,0	<b>C</b>	91,6			
		1,5	<b>D</b>	< 80			
		2,0	<b>D</b>	< 80			
<b>422/428</b> <b>L.033V</b>	6 x 6 mm	0,0	<b>A</b>	99,9	<b>A</b>	99,3	4
		0,5	<b>A</b>	99,5	<b>B</b>	98,1	
		1,0	<b>B</b>	96,9	<b>C</b>	93,4	
		1,5	<b>C</b>	87,9	<b>C</b>	87,5	
		2,0	<b>D</b>	< 80	<b>D</b>	< 80	
		2,5	<b>D</b>	< 80	<b>D</b>	< 80	
<b>411/414/431</b> <b>L.033.01</b>	2,3 x 2,3 mm	0,0	<b>A</b>	99,5	<b>B</b>	95,3	3
		0,5	<b>A</b>	99,0	<b>C</b>	91,0	
		1,0	<b>B</b>	96,5	<b>C</b>	80,5	
		1,5	<b>D</b>	< 80	<b>D</b>	< 80	
		2,0	<b>D</b>	< 80	<b>D</b>	< 80	
<b>451</b> <b>L.066.01</b>	6 x 6 mm standard	0,0			<b>B</b>	95,5	3
		0,5			<b>C</b>	92,9	
		1,0			<b>C</b>	90,8	
		1,5			<b>C</b>	82,8	
		2,0			<b>D</b>	< 80	
<b>457</b>	2,3 x 2,3 mm	0,0	<b>B</b>	96,9			3
		0,5	<b>B</b>	95,2			
		1,0	<b>C</b>	93,7			
		1,5	<b>C</b>	89,2			
		2,0	<b>D</b>	< 80			
<b>457</b>	6 x 6 mm	0,0			<b>C</b>	90,4	3
		0,5			<b>C</b>	87,3	
		1,0			<b>C</b>	84,8	
		1,5			<b>C</b>	81,3	
		2,0			<b>D</b>	< 80	
<b>421/424</b> <b>L.050.00</b>	2,3 x 2,3 mm standard	0,0	<b>B</b>	95	<b>C</b>	90,6	3
		0,5	<b>C</b>	92,2	<b>C</b>	87,7	
		1,0	<b>C</b>	89,8			
		1,5	<b>C</b>	84,5			
		2,0	<b>D</b>	< 80			
<b>481/484</b>	2,3 x 2,3 mm	0,0	<b>B</b>	96			2
		0,5	<b>C</b>	94,3			
		1,0	<b>C</b>	92,2			
		1,5	<b>C</b>	88,2			
		2,0	<b>D</b>	< 80			
<b>412/415</b>	2,3 x 2,3 mm	0,0	<b>A</b>	99,9			4
		0,5	<b>A</b>	99,7			
		1,0	<b>A</b>	99,2			
		1,5	<b>B</b>	95,6			
		2	<b>C</b>	87,5			
		2,5	<b>D</b>	< 80			
<b>412/415</b>	6 x 6 mm standard	0,0			<b>C</b>	90,4	4
		0,5			<b>D</b>	81,6	
		1,0			<b>D</b>	< 80	
<b>446/150</b> <b>L.150AC</b>	2,3 x 2,3 mm	0,0	<b>A</b>	99,3			4
		0,5	<b>B</b>	96,6			
		1,0	<b>C</b>	91,3			
		1,5	<b>D</b>	< 80			
<b>480/483</b> <b>L.060HF</b>	2,3 x 2,3 mm	0,0	<b>C</b>	90,1	<b>D</b>	< 80	1
		0,5	<b>C</b>	87,3			
		1,0	<b>C</b>	84,2			
		1,5	<b>C</b>	80,1			
		2,0	<b>D</b>	< 80			
<b>445/86</b> <b>L.060AC</b>	-	0,0			<b>C</b>	83,3	2
		0,5			<b>D</b>	< 80	

# SELECTION CRITERIA

## IP-CLASSES

- **IP-class** = international protection rating, protection level against the intrusion of strange objects and water. The IP-class has two figures: the first one indicates the level of protection against physical contact and the intrusion of strange objects; the second is the level of protection against moisture. Additionally, a letter can indicate which protection is offered against physical contact with hazardous objects by people within the housing [electrical enclosures]. The distance to the electrical installation is measured from the outer surface area of the louvres. The IP-class of the louvres is determined in accordance with EN 60529.
- **Meaning IP2XD:**
  - 2: Protection against medium-sized objects/approach by fingers. Protection against the intrusion of medium-sized objects [larger than 12.5 mm].
  - X: Protection against moisture is not verified according to this standard given that the louvres are tested according to the more accurate water-resistance test for louvres according to EN 13030.
  - D: Protection against contact with wire (Ø 1 mm, length 100 mm)
- **Meaning IP44:**
  - 4: Protection against sharp objects/contact with a tool/wire.
  - Protection against the intrusion of fixed objects larger than 1 mm
  - 4: Splash-proof: protected from water spray from any direction [10 l/min].

## TEST REPORTS

Louvres that comply with specific requirements are tested by independent institutions according to specific EN standards. Test reports for air permeability, IP rating, burglar resistance, sound reduction, and water-repellant properties are available on our website or upon request.



**Burglar resistance:** louvre tested according to official RC classification



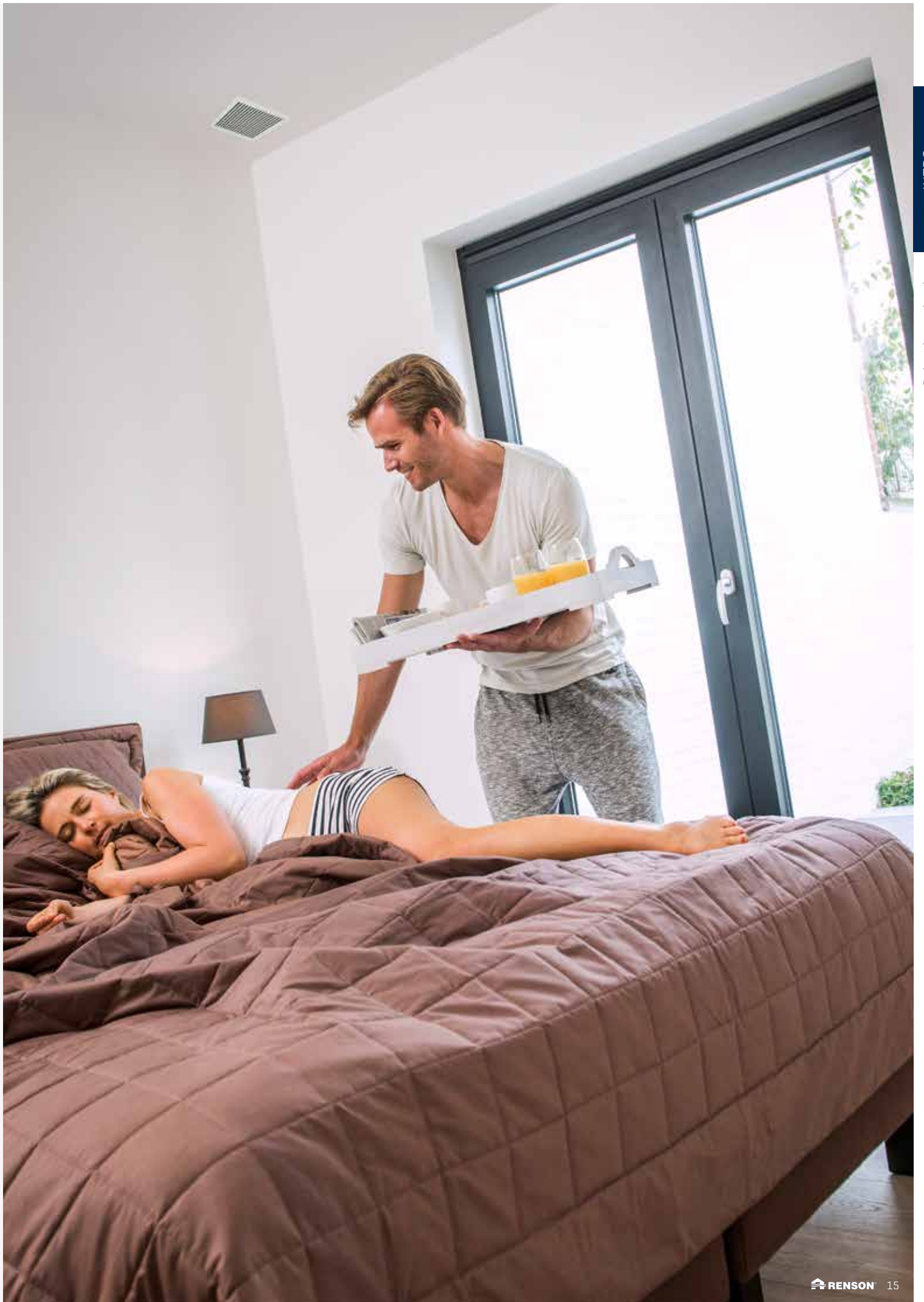
**Waterproof:** louvre with high classification [see p. 12]



**Acoustic damping:** louvre equipped with acoustic mineral wool for noise reduction



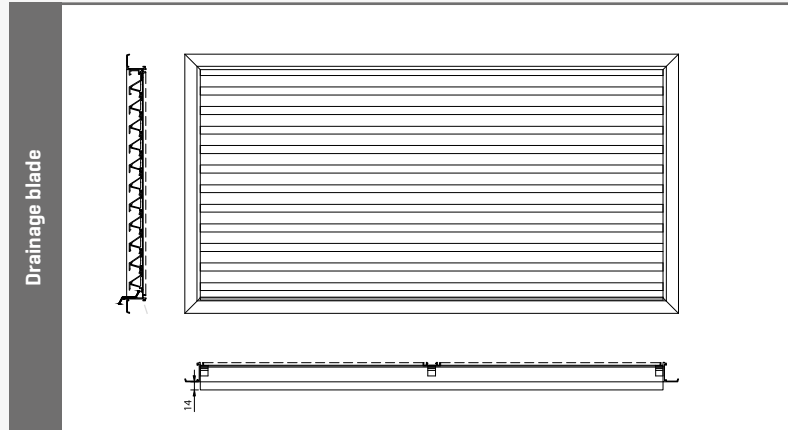
**Stick-proof:** this louvre has been IP certified [EN 60529]



# OPTIONS

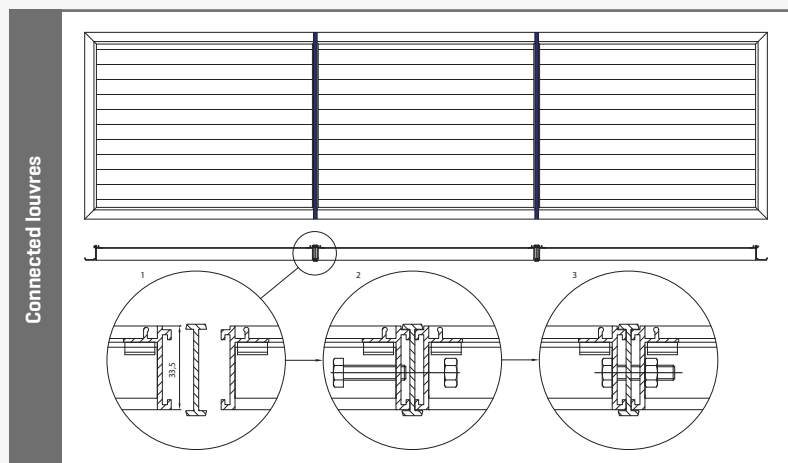
## DRAINAGE BLADE

This option is available for most types of rectangular aluminium louvres.



## CONNECTED LOUVRES

If the desired louvre dimensions are larger than the maximum dimensions, many louvre types can be supplied in sections that can be connected on site. Possibilities and limitations are analysed on a project basis.

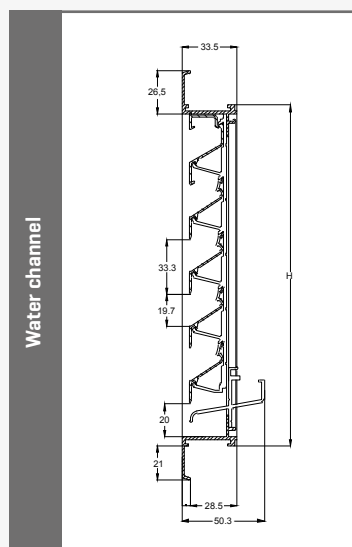


## WATER CHANNEL

A water channel can be used with a large number of louvre types with straight bottom sides.

This option always has to be combined with a 2.3 x 2.3 mm insect screen.

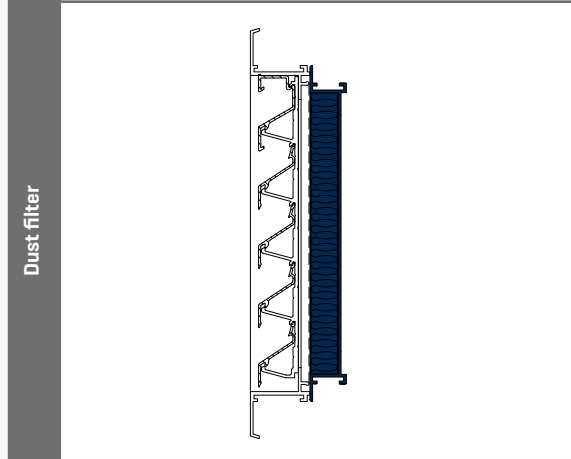
The water channel ensures better drainage of the water collected by the screen and thus increases the water-repellant characteristics of the louvre.





## DUST FILTER

The louvre is extended with an additional frame with dust filter.  
 The additional louvre depth is 21 mm.  
 The applied filter is a class G4: This type of filter is commonly used in ventilation systems and filters dust particles from  $\pm 5 \mu\text{m}$  [0.005 mm].  
 G4 filters filter more than 90% of these dust particles from the air, making them the best category of their kind.



## REMOVABLE INSECT MESH 401

### Material

- Pick-up angle (non-visible) in polyamide
- Mesh in stainless steel 304/6x6 mm/2.3x2.3 mm

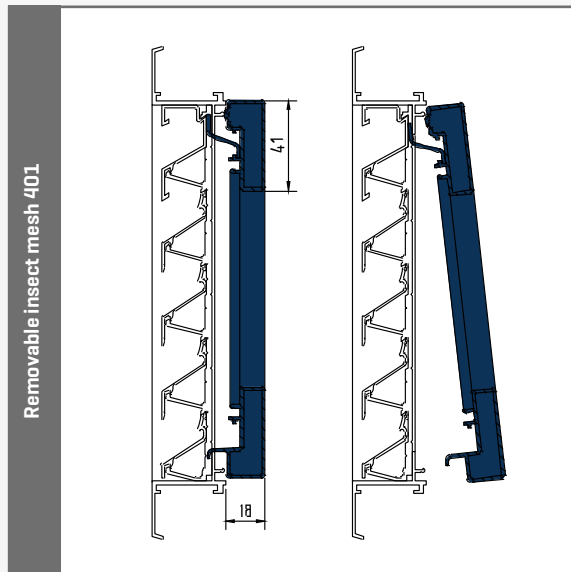
### Dimensions

- Minimum dimensions: 190 x 190 mm
- Maximum dimensions: 1500 x 1500 mm
- If width or height > 1500 mm : removable mesh in 2 or more pieces – width and height > 1500 mm is not possible.





### Advantages

- Integrated water channel
- Aesthetical mesh
- No technical details visible
- Applicable to louvres with water channel








Remark: not applicable to surface-mounted louvres



# OVERVIEW OF THE RANGE

Family					Airflow					Page
Blade type	Louvre type	Product type	Blade pitch [mm]	Physical free area [%]	K-factor supply	K-factor discharge	C <sub>s</sub> coefficient	C <sub>d</sub> coefficient		
V20 blade	Built-in wall louvre	  412	20	39	34.6	34.6	0.170	0.170	28	
V20 blade	Built-in wall louvre	  412R	20	39	34.6	34.6	0.170	0.170	30	
V20 blade	Glazed-in louvre	  415	20	39	34.6	34.6	0.170	0.170	88	
V20 blade	Controllable glazed-in louvres	  415VA	20	n/a	n/a	n/a	n/a	n/a	92	
V20 blade	Round glazed-in louvre	  415R	20	39	34.6	34.6	0.170	0.170	90	
L.033.01	Built-in wall louvre	 411	33.3	50	20.47	19.58	0.221	0.226	22	
L.033.07	Built-in wall louvre	411R	33.3	40.5	23.56	25.51	0.206	0.198	26	
L.033.01	Glazed-in louvre	 414	33.3	50	20.47	19.58	0.221	0.226	80	
L.033.07	Round glazed-in louvre	414R	33.3	40.5	23.56	25.51	0.206	0.198	82	
L.033.01	Glazed-in louvre	414/D	33.3	n/a	n/a	n/a	n/a	n/a	84	
L.033.01	Controllable glazed-in louvres	414/VA	33.3	n/a	n/a	n/a	n/a	n/a	84	
L.033.01	Glazed-in louvre Thermally broken frame	414THF	33.3	50	20.47	19.58	0.221	0.226	86	
L.033.01	Surface-mounted louvre	 431	33.3	50	20.47	19.58	0.221	0.226	72	
L.033.07	Surface-mounted louvre	431R	33.3	40.5	23.56	25.51	0.206	0.198	74	
L.033.01	Surface-mounted louvre	432	33.3	50	20.47	19.58	0.221	0.226	76	
L.033.01	Louvre box	440/11	33.3	50	20.47	19.58	0.221	0.226	128	
L.033.08	Built-in wall louvre	  491	33.3	26	123.5	118.1	0.09	0.092	70	
L.033.08	Glazed-in louvre	  494	33.3	26	123.5	118.1	0.09	0.092	102	
L.033V	Built-in wall louvre	422	33.3	43	66.10	66.10	0.123	0.123	36	
L.033V	Glazed-in louvre	 428	33.3	43	66.10	66.10	0.123	0.123	96	
L.050.00	Built-in wall louvre	421	50	49	13.42	11.73	0.273	0.292	32	
L.050.00	Round built-in wall louvre	421R	50	47	13.42	11.73	0.273	0.292	34	
L.050.00	Louvre box	440/21	50	49	13.42	11.73	0.273	0.292	128	
L.050.00	Glazed-in louvre	424	50	49	13.42	11.73	0.273	0.292	94	
L.050HF	Built-in wall louvre	481	50	60	9.59	10.01	0.323	0.316	50	
L.050HF	Glazed-in louvre	484	50	60	9.59	10.01	0.323	0.316	100	
L.050W	Built-in wall louvre	 450	50	57	10.47	16.52	0.309	0.246	58	
L.050W	Built-in wall louvre	 76 450V	50	57	10.75	16.52	0.305	0.246	60	
L.060HF	Built-in wall louvre	480	60	76	5.12	5.59	0.442	0.423	48	
L.060HF	Glazed-in louvre	 76 483	60	76	5.12	5.59	0.442	0.423	98	
L.066.01	Built-in wall louvre	451	66	49	14.24	11.77	0.265	0.291	40	
L.066V	Built-in wall louvre	  452	66	41	66.1	79.7	0.123	0.112	62	
L.066V	Built-in wall louvre	  452V	66	41	60.1	79.9	0.129	0.114	64	
L.065AL	Built-in wall louvre	453	65	55	13.92	17.22	0.268	0.241	42	
L.075HF	Built-in wall louvre	457	75	52	13.13	14.24	0.276	0.265	46	
Vertical blade	Built-in wall louvre	  97 468SA	85	29	115.62	115.62	0.093	0.093	46	
L.075W	Built-in wall louvre	 475	75	53	10.89	10.41	0.303	0.310	66	
L.075W	Glazed-in louvre	 475GL	75	53	10.89	10.41	0.303	0.310	68	

Remark: test results according to louvres including mesh.

Family					Airflow				Page
Blade type	Louvre type	Product type	Blade pitch [mm]	Physical free area [%]	K-factor supply	K-factor discharge	C <sub>e</sub> coefficient	C <sub>d</sub> coefficient	
Movable blade	Built-in wall louvre	427	100	53	11.41	11.65	0.296	0.293	38
Movable blade	Glazed-in louvre	427GL	100	53	11.41	11.65	0.296	0.293	104
L.060AC	Acoustic louvre	 445/86	60	34	10,75	9,95	0,305	0,317	106
L.150ACS.01	Acoustic louvre	 446/150	150	34.3	38.46	34.48	0.161	0.169	108
L.150ACL.01	Acoustic louvre	 446/225	150	34.3	37.3	41.9	0.164	0.15	110
L.150ACS.01	Acoustic louvre	 446/300	150	34.3	45.93	45.93	0.148	0.148	112
L.150ACS.01	Acoustic louvre	 447/150	170	37	25.46	25.15	0.198	0.200	114
L.150ACL.01	Acoustic louvre	 447/225	170	37	28.58	30.88	0.187	0.180	116
Acoustic	Acoustic louvre	 468AK	85	29	86.85	89.35	0.107	0.106	140
Glass blade	Glazed-in louvre	327	n/a	n/a	n/a	n/a	n/a	n/a	110
Floor blade	Floor grille	311	16.5	76	n/a	n/a	n/a	n/a	130
Floor blade	Floor grille	371	20.5	61	n/a	n/a	n/a	n/a	132
Strips	Ventilation grille	381	n/a	80	n/a	n/a	n/a	n/a	172
Linear blade	Linear bar grille	392	13	76	n/a	n/a	n/a	n/a	134
Linear blade	Linear bar grille	394	16.5	59	n/a	n/a	n/a	n/a	136
Punched	Punched grille	435R	n/a	n/a	n/a	n/a	n/a	n/a	166
Sliding blade	Controllable internal louvre	4032	n/a	n/a	n/a	n/a	n/a	n/a	158
Sliding blade	Controllable internal louvre	441	n/a	n/a	n/a	n/a	n/a	n/a	157
Sliding blade	Controllable internal louvre	442	n/a	n/a	n/a	n/a	n/a	n/a	156
Door blade	Door grille	 461	20	39	33.8	33.8	0.172	0.172	138
Extractor	Surface-mounted louvre	433	37 or 99	n/a	n/a	n/a	n/a	n/a	78
Door blade	Door grille	 469 Invisido	n/a	n/a	17.03	17.03	0.24	0.24	146
Door blade	Door grille	 461AK Silendo	n/a	27	6.13	6.13	0.40	0.40	144
Burglar resistance blade	Burglar resistance louvre	 421RC2	50	43	13.82	12.85	0.269	0.279	118
Burglar resistance blade	Burglar resistance louvre	 421RC3	50	43	13.82	12.85	0.269	0.279	124
Burglar resistance blade	Burglar resistance louvre	 424RC2	50	43	13.82	12.85	0.269	0.279	120
L.033.07	Burglar resistance louvre	 431RC2	33.3	40.5	23.56	25.51	0.206	0.198	122
Burglar resistance blade	Burglar resistance louvre	 423RC4	50	22	27.06	27.28	0.193	0.192	126
Fire blade	Fire-resistant louvre	464 Incendo	20	51	10.27	10.27	0.312	0.312	148
Fire blade	Fire-resistant louvre	465	17.5	57	8.16	8.16	0.350	0.350	150
Fire blade	Fire-resistant louvre	466	20	70	6.80	6.80	0.383	0.383	152
Fire blade	Fire-resistant louvre	467	18	66.7	4.16	4.06	0.490	0.496	154
Galvanised blade	Built-in wall louvre	511	33.3	43	92.13	84.73	0.104	0.109	52
Galvanised blade	Built-in wall louvre	521	50	54	14.91	16.00	0.259	0.250	54
Stainless blade	Built-in wall louvre	621	50	54	14.91	16.00	0.259	0.250	56

# PRODUCTS



414 - Glazed-in louvre



421 - Wall louvre, heavy-duty series



411 - Wall louvre



# 411

## Wall louvre, standard series

BUILT-IN WALL  
LOUVRE

ALUMINIUM



411 with thermal insulation panel



Cable feed channel

### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 insect screen [2.3 x 2.3 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 33,3 mm
- Depth to fit: 29 mm
- Flange size: 21 mm
- Minimum dimensions: 100 x 100 mm

### FIXING

- Brackets ref. 418
- Spring clips ref. 419 available on request [small dimensions]
- For louvres larger than approx. 3 m<sup>2</sup>, a reinforcing mullion is required to suit span and windload

### OPTIONS *[see p. 16]*

- Water channel
- Drainage profile
- Removable insect mesh
- Backframe
- Filter
- Special shape *[see next p.]*
- Controllable *[see next p.]*
- Without flange *[see next p.]*
- Glazed-in louvre 414 *[see p. 80]*
- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316
- Spring clips 419 [small dimensions]
- Cable feed channel

### TYPICAL APPLICATIONS

- Every application without specific needs



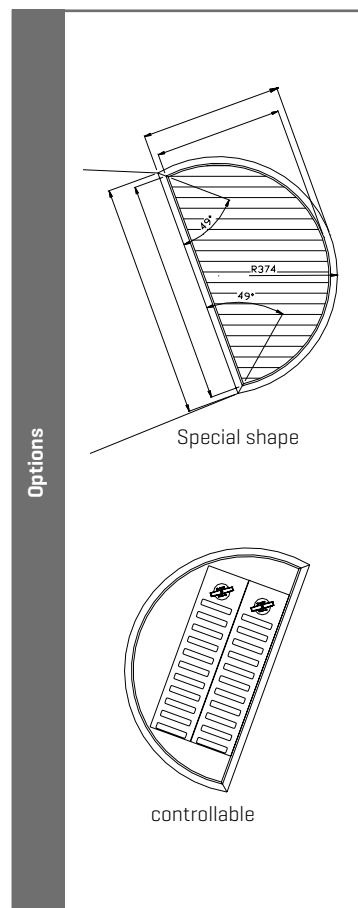
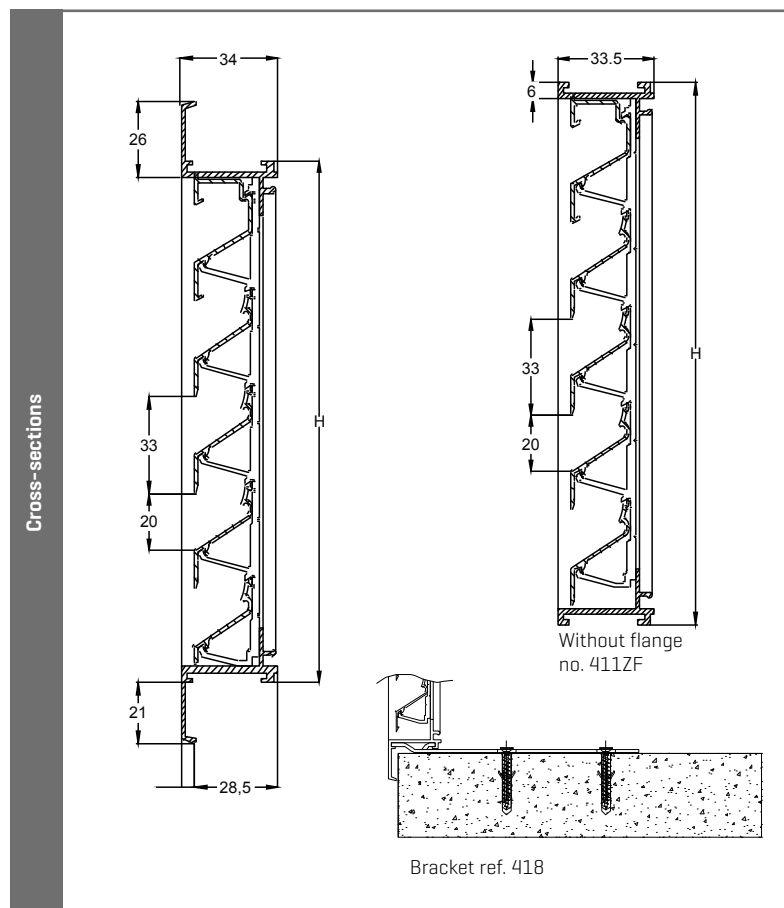
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

<b>Weatherability</b>	[EN 13030]
Class [details see p. 12]	A3 [0.5 m/s]
<b>Airflow</b>	[EN 13030]
K-factor [entry]	20.47
K-factor [discharge]	19.58
C <sub>e</sub> coefficient	0.221
C <sub>d</sub> coefficient	0.226
<b>Technical data</b>	
Visual free area	59%
Physical free area	50%
IP class [louvre with mesh; electrical installation at least 100 mm from louvre]	IP2XD



## TECHNICAL DRAWINGS



# 411

## Wall louvre, standard series

BUILT-IN WALL  
LOUVRE



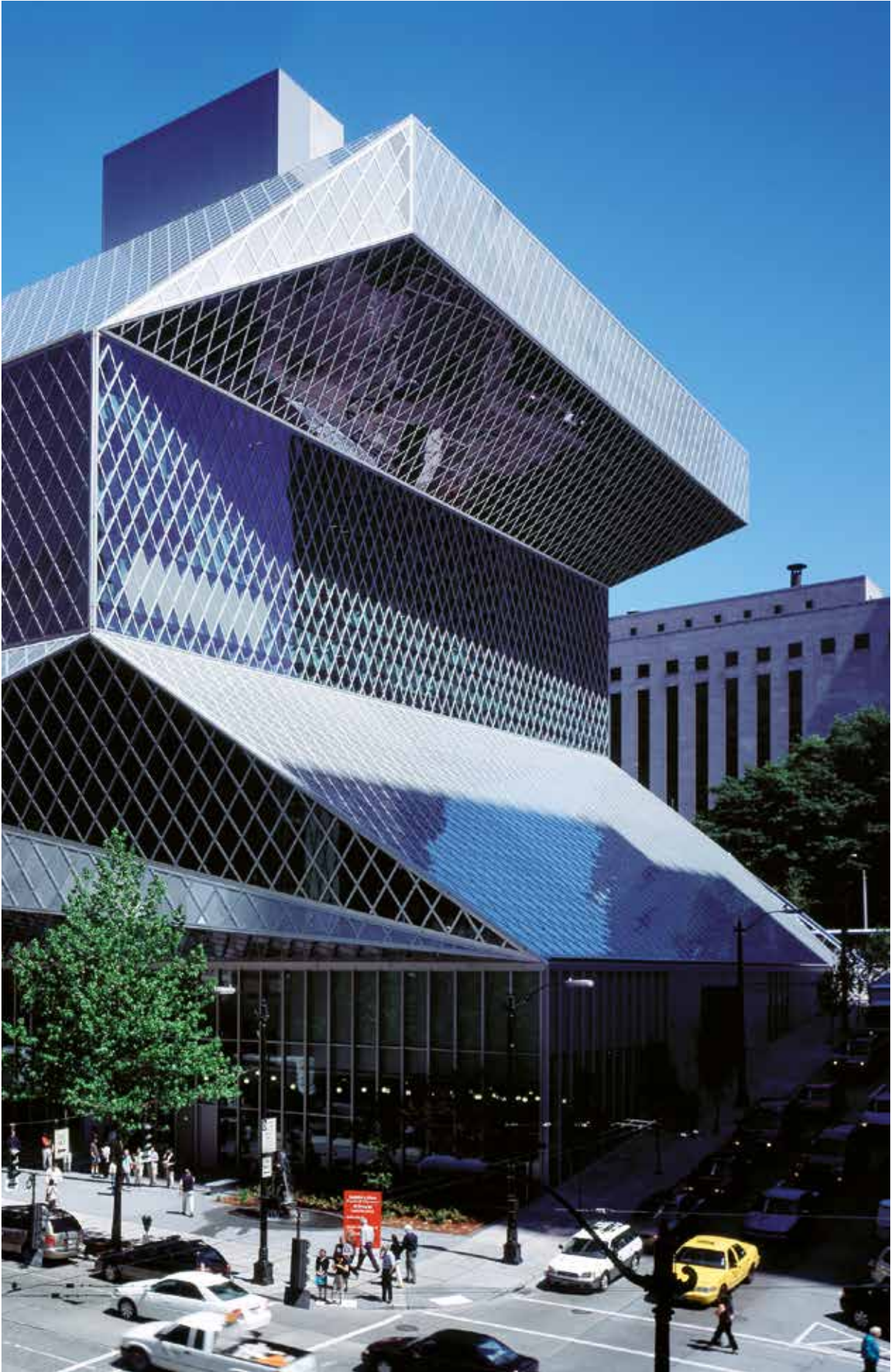
ALUMINIUM



### STOCK MODELS

Dimensions (W x H) mm	Natural colour anodised F1	Renson Standard WHITE	STR 7016	STR 9005	Airflow at 2 Pa (m <sup>3</sup> /h)
142 x 142	00041197				23
200 x 200	00041122	00411226	00411223	00411229	50
300 x 200	00041132				77
300 x 300	00041133				118
400 x 200	00041142	00411426			103
400 x 300	00041143	00411436			159
400 x 400	00041144	00411446			215
500 x 300	00041153				201
500 x 400	00041154				271
500 x 500	00041155				342
600 x 300	00041163				242
600 x 400	00041164				327
600 x 600	00041166				497
700 x 700	00041177				682
1000 x 500	00411105				694
1000 x 1000	00041111				1409



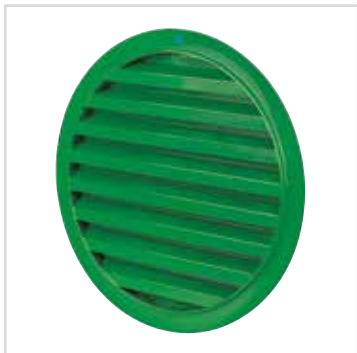


# 411R

## Round wall louvre

BUILT-IN WALL  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 insect screen [2.3 x 2.3 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]
- Frame assembled by a single weld

### DIMENSIONS

- Blade pitch: 33,3 mm
- Depth to fit: 28 mm
- Flange size: 23 mm
- Minimum diameter: 300 mm
- Maximum diameter:
  - 1400 mm if anodised in satin colour
  - 1500 mm if powder-coated in RAL or Syntha Pulvin colour
  - Over 1500 mm: in two parts

### FIXING

- Brackets pre-fitted to the frame

### OPTION

- Glazed-in louvre 414R [see p. 82]
- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316
- Without flange

### TYPICAL APPLICATIONS

- Every application without specific needs

### STOCK MODELS

Dimensions (W x H) mm	Natural colour anodised F1	Airflow at 2 Pa (m <sup>3</sup> /h)
ø 300	41103001	96

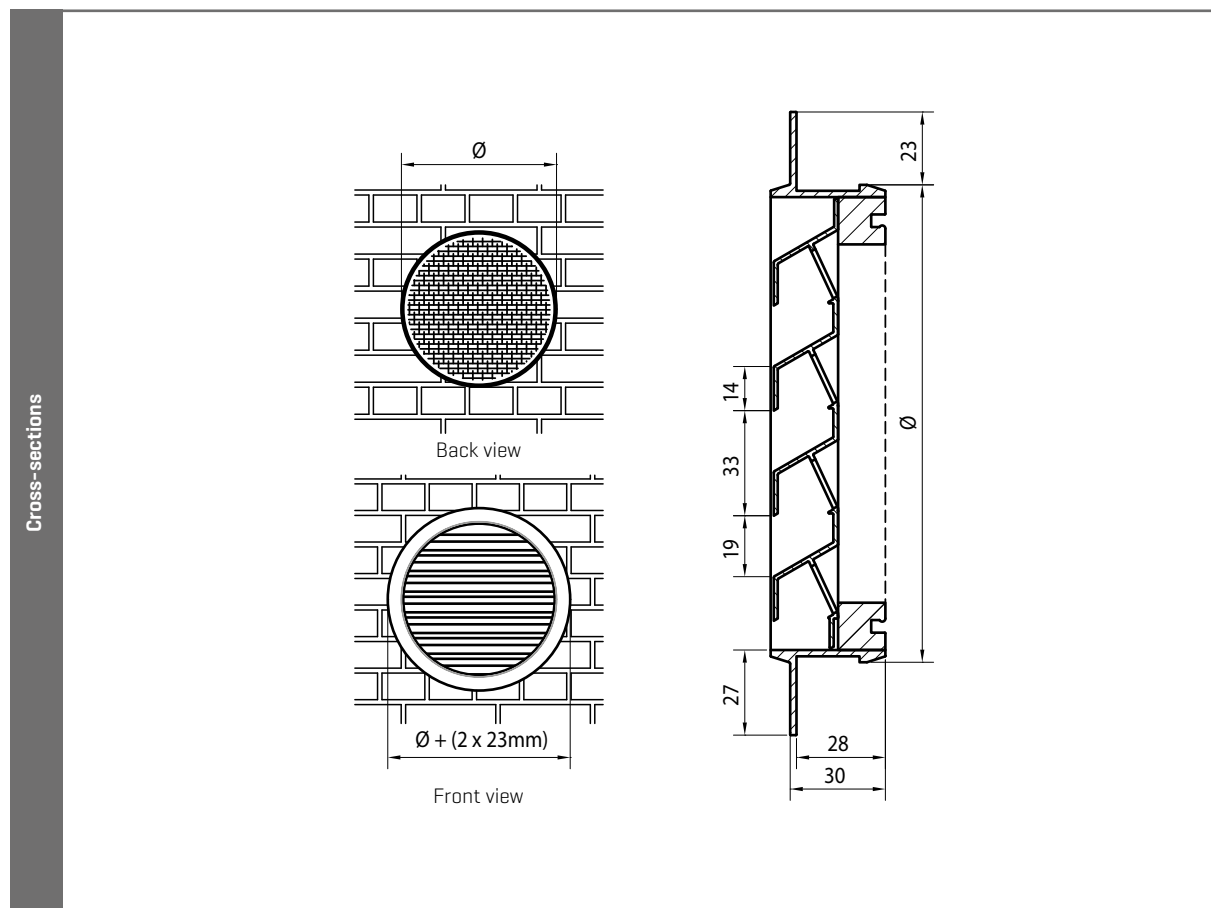
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		23.56
K-factor [discharge]		25.51
C <sub>e</sub> coefficient		0.206
C <sub>d</sub> coefficient		0.198
Technical data		
Visual free area		59%
Physical free area		40.5%
IP class [louvre with mesh; electrical installation at least 100 mm from louvre]		IP2XD



## TECHNICAL DRAWINGS



# 412

## Built-in wall louvre with chevron section blades

BUILT-IN WALL  
LOUVRE

ALUMINIUM



412 with dust filter

### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 (according to EN 12020-2)
- Stainless steel 304 mesh [6 x 6 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]
- Equipped with earthing lug

### DIMENSIONS

- Blade pitch: 20 mm chevron
- Depth to fit: 29 mm
- Flange size: 21 mm
- Minimum dimensions: 100 x 100 mm

### FIXING

- Brackets ref. 418
- For louvres larger than approx. 3 m<sup>2</sup>, a reinforcing mullion is required to suit span and windload

### OPTIONS

- Water channel
- Drainage profile
- Removable insect mesh
- Backframe
- Filter
- Without flange
- Glazed-in louvre 415 (see p. 88)
- Stainless steel 304 mesh [2,3x2,3/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316
- Spring clips 419 (small dimensions)

### TYPICAL APPLICATIONS

- High-voltage stations
- IT rooms

### STOCK MODELS

Dimensions (W x H) mm	Natural colour anodised F1	Airflow at 2 Pa (m <sup>3</sup> /h)
200 x 200	00041222	45
300 x 300	00041233	102
400 x 300	00041243	136
500 x 300	00041253	170
600 x 400	00041264	271



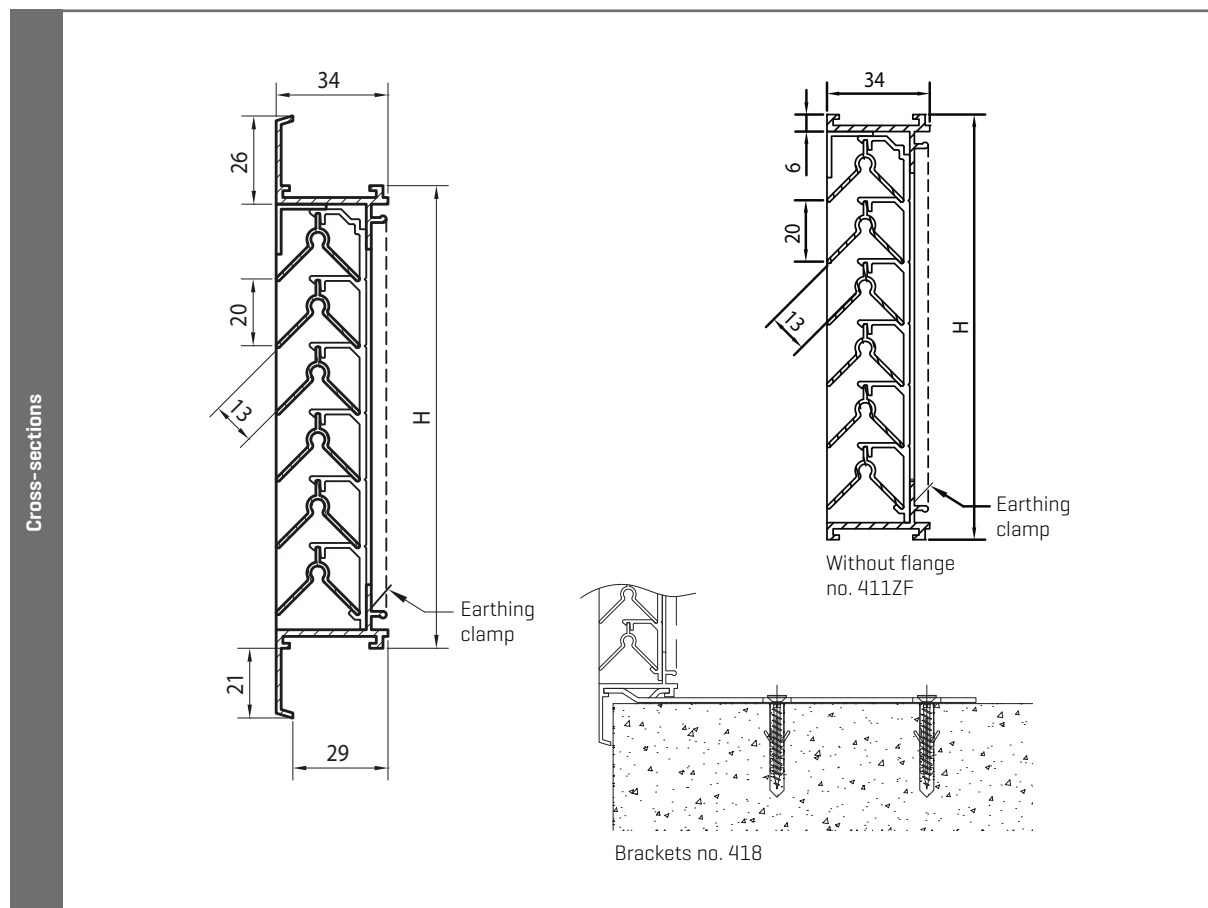
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

<b>Weatherability</b>		[EN 13030]
Class for execution with mesh 2.3x2.3 mm and water channel (details see p. 12)		A4 [1 m/s]
<b>Airflow</b>		[EN 13030]
K-factor [entry]		34.60
K-factor [discharge]		34.60
C <sub>e</sub> coefficient		0.170
C <sub>d</sub> coefficient		0.170
<b>Technical data</b>		
Visual free area		93%
Physical free area		39%
IP class		IP2XD
IP class for version with mesh 2.3x2.3 mm and water channel (electrical installation at least 350 mm)		IP44



## TECHNICAL DRAWINGS



# 412R

## Round wall louvre with chevron section blades

BUILT-IN WALL  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 mesh [6 x 6 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]
- Frame assembled by a single weld

### DIMENSIONS

- Blade pitch: 20 mm chevron
- Depth to fit: 34 mm
- Flange size: 23 mm
- Minimum diameter: 300 mm
- Maximum diameter:
  - 1400 mm if anodised in satin colour
  - 1500 mm if powder-coated in RAL or Syntha Pulvin colour
  - Over 1500 mm: in two parts

### FIXING

- Brackets pre-fit to the frame

### OPTIONS

- Glazed-in louvre 415R [see p. 90]
- Stainless steel 304 mesh [2,3x2,3/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

### TYPICAL APPLICATIONS

- High-voltage stations
- IT rooms

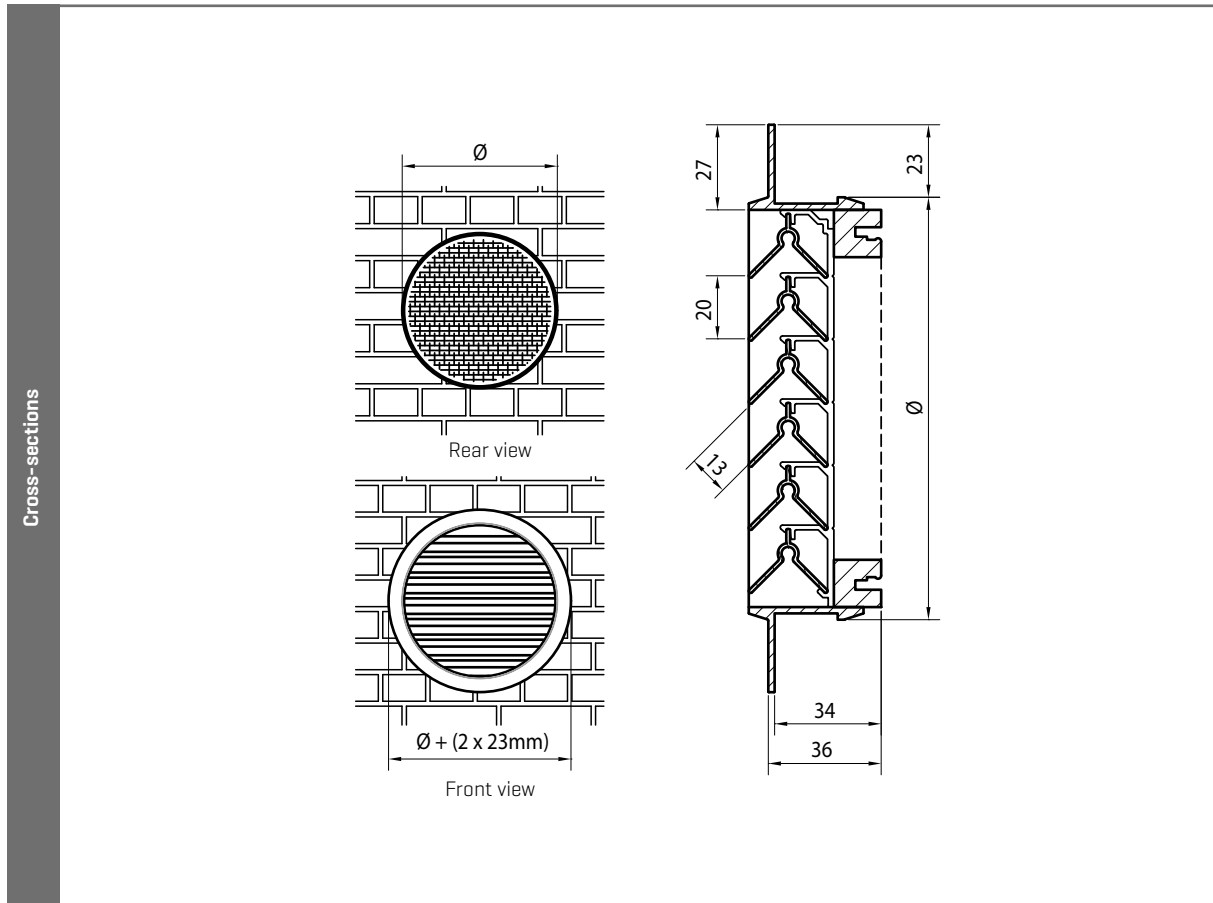


## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		34.60
K-factor [discharge]		34.60
C <sub>e</sub> coefficient		0.170
C <sub>d</sub> coefficient		0.170
Technical data		
Visual free area		93%
Physical free area		39%
IP class		IP2XD

## TECHNICAL DRAWINGS



# 421

## Built-in wall louvre, heavy-duty series

BUILT-IN WALL  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 insect screen [2.3 x 2.3 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 50 mm
- Depth to fit: 46 mm
- Flange size: 40 mm
- Minimum dimensions: 150 x 150 mm

### FIXING

- Brackets ref. 1428
- For louvres larger than approx. 3 m<sup>2</sup>, a reinforcing mullion is required to suit span and windload

### OPTIONS

- Water channel
- Drainage profile
- Removable insect mesh
- Filter
- Without flange
- Glazed-in louvre 424 [see p. 94]
- Burglar resistance louvre 421RC2 [see p. 118]
- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

### TYPICAL APPLICATIONS

- Applications where aesthetics and strength are key parameters



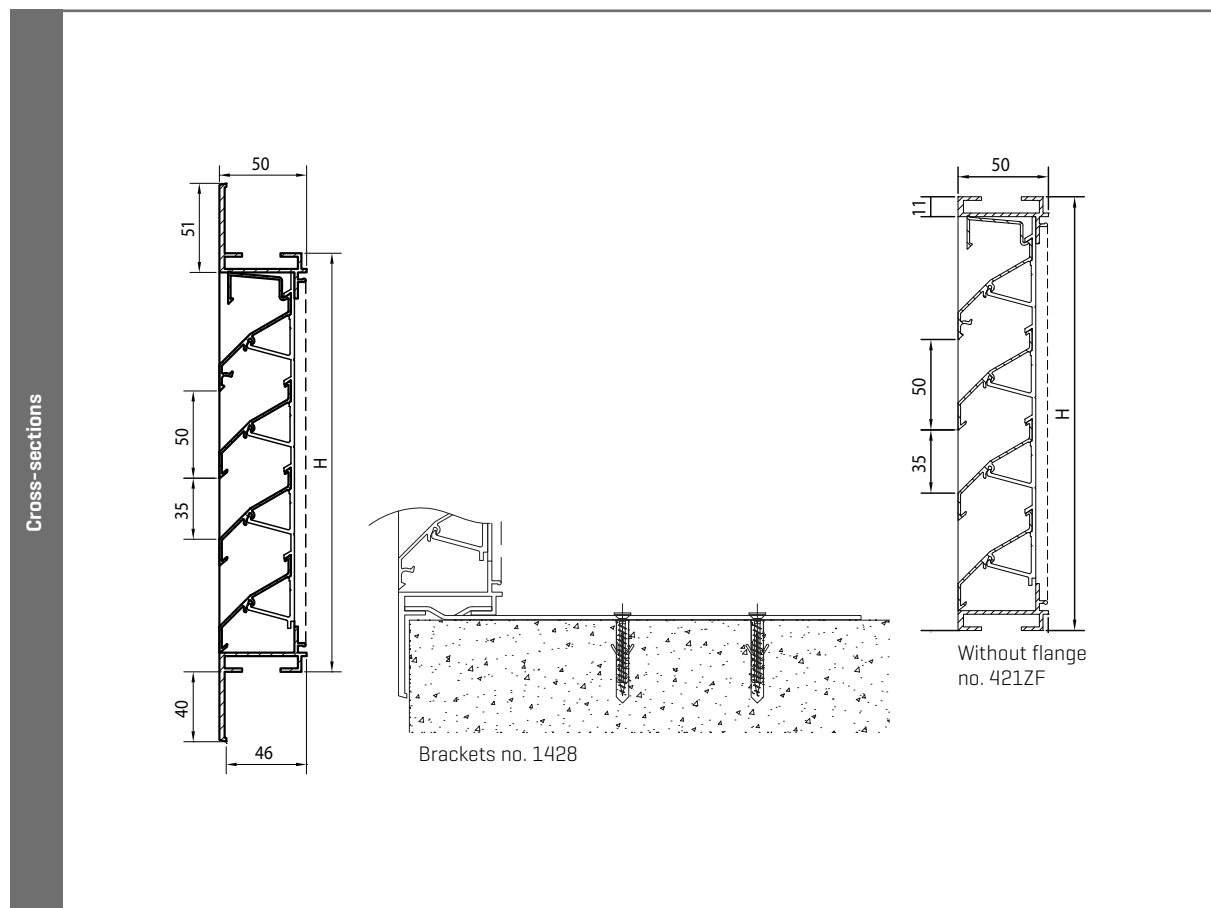
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		13.42
K-factor [discharge]		11.73
C <sub>e</sub> coefficient		0.273
C <sub>d</sub> coefficient		0.292
Technical data		
Visual free area		70%
Physical free area		49%
IP class [louvre with mesh; electrical installation at least 100 mm from louvre]		IP2XD



## TECHNICAL DRAWINGS



# 421R

## Round wall louvre, heavy-duty series

BUILT-IN WALL  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Finishing: anodised in satin colour (20 microns) or powder-coated in any RAL or Syntha Pulvin colour (40 microns)
- Stainless steel 304 insect screen (2.3 x 2.3 mm)
- Frame assembled by a single weld

### DIMENSIONS

- Blade pitch: 50 mm
- Depth to fit: 57 mm
- Flange size: 22 mm
- Minimum diameter: 400 mm
- Maximum diameter:
  - 1400 mm if anodised in satin colour
  - 1500 mm if powder-coated in RAL or Syntha Pulvin colour
  - Over 1500 mm: in two parts

### FIXING

- Brackets pre-fit to the frame

### TYPICAL APPLICATIONS

- Applications where aesthetics and strength are key parameters

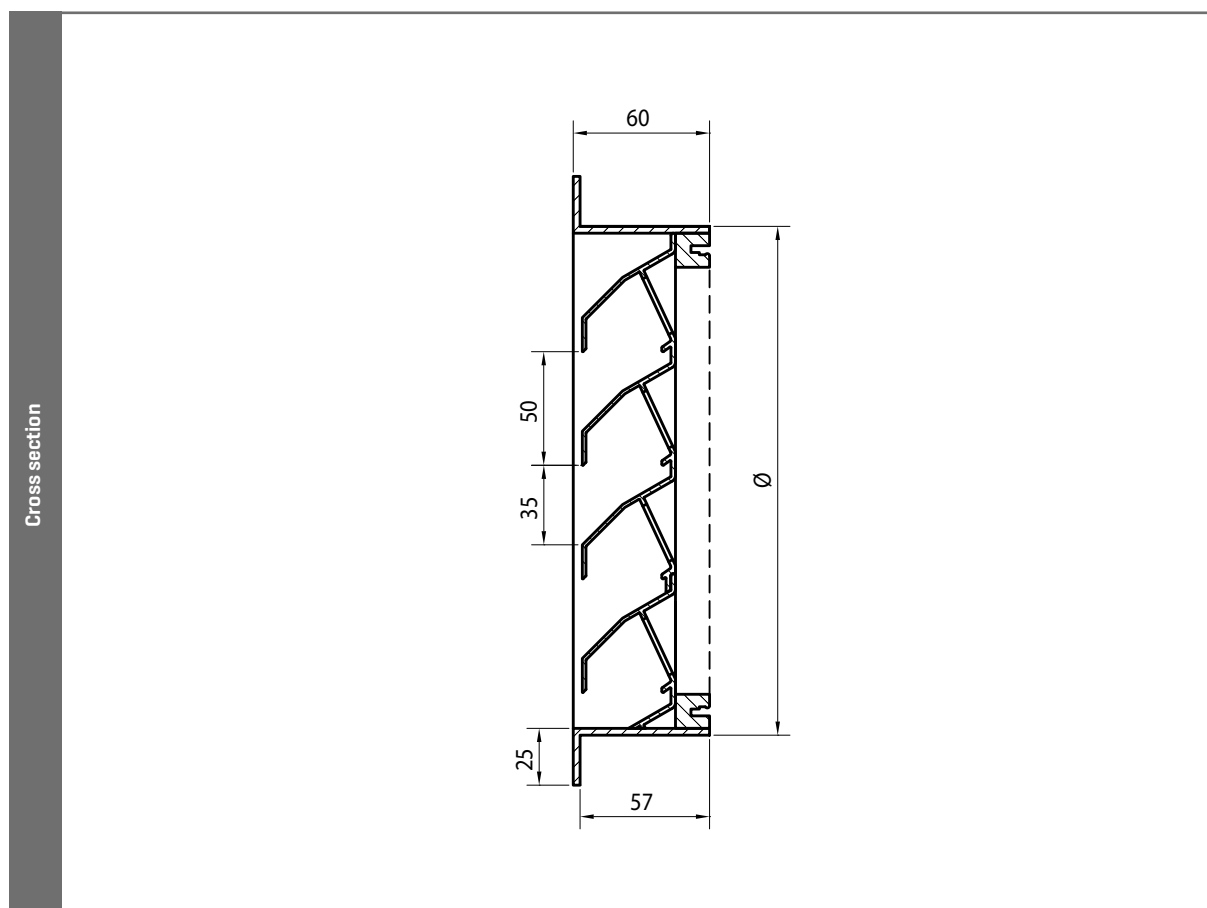
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		13.42
K-factor [discharge]		11.73
C <sub>e</sub> coefficient		0.273
C <sub>d</sub> coefficient		0.292
Technical data		
Visual free area		70%
Physical free area		47%
IP class [louvre with mesh; electrical installation at least 100 mm from louvre]		IP2XD



## TECHNICAL DRAWINGS



# 422

## Built-in wall louvre with chevron section blades, heavy-duty series

BUILT-IN WALL  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Standard stainless steel 304 insect screen [6 x 6 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 33 mm
- Depth to fit: 46 mm
- Flange size: 40 mm
- Minimum dimensions: 150 x 150 mm

### FIXING

- Brackets ref. 1428
- For louvres larger than approx. 3 m<sup>2</sup>, a reinforcing mullion is required to suit span and windload

### OPTIONS

- Water channel
- Drainage profile
- Removable insect mesh
- Filter
- Without flange
- Glazed-in louvre 428 [see p. 96]
- Stainless steel 304 insect screen 2,3x2,3 or mesh [10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

### TYPICAL APPLICATIONS

- Applications where extreme strength and stick-proof are key parameters

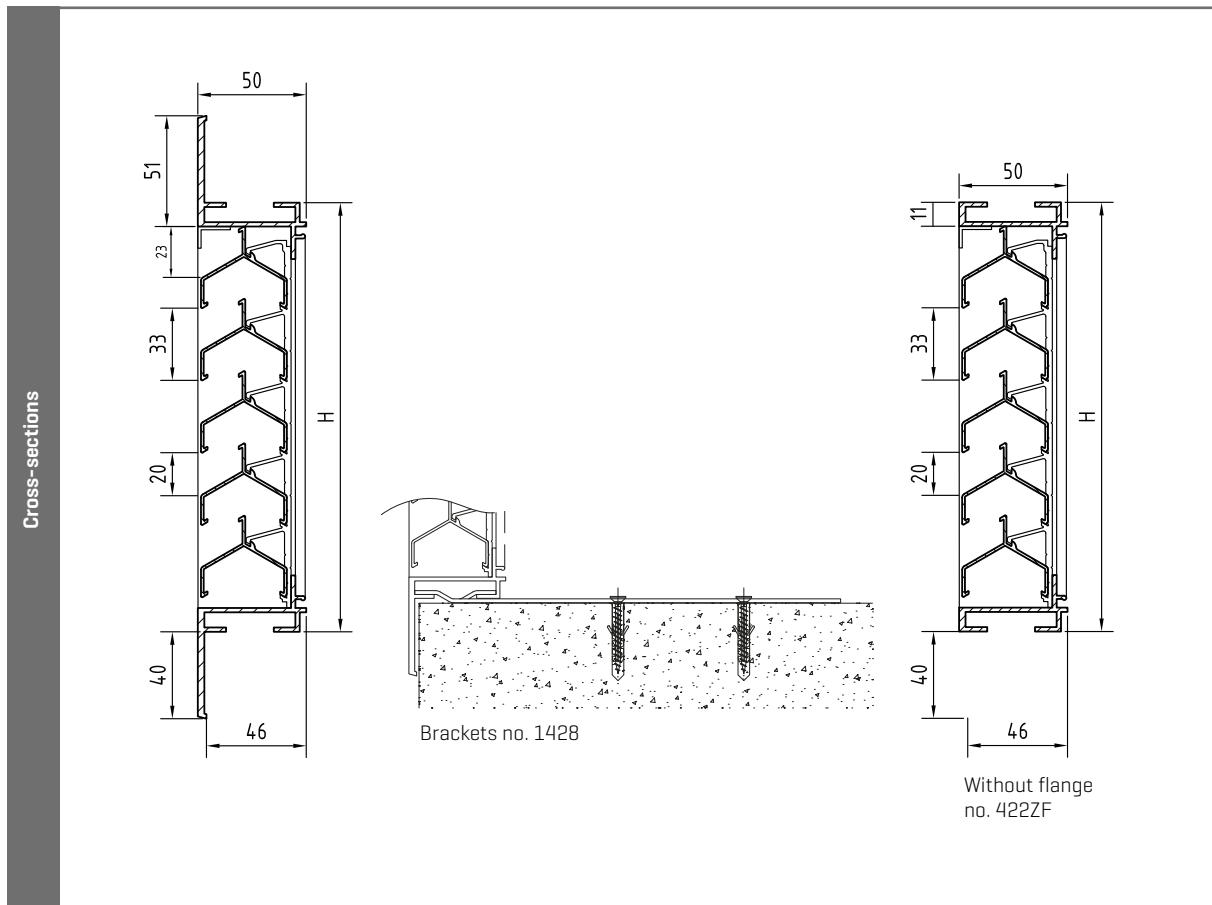


## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

<b>Weatherability</b>		[EN 13030]
Class for execution with mesh 6x6 mm and water channels [details see p. 12]		A4 [0.5 m/s]
<b>Airflow</b>		[EN 13030]
K-factor [entry]		66.10
K-factor [discharge]		66.10
C <sub>e</sub> coefficient		0.123
C <sub>d</sub> coefficient		0.123
<b>Technical data</b>		
Visual free area		59%
Physical free area		43%
IP class		IP2XD
IP class for version with mesh 2.3x2.3 mm and water channel (electrical installation at least 200 mm)		IP44

## TECHNICAL DRAWINGS



# 427 [427/1 - 427/2 - 427/3 - 427/4 - 427/5]

Built-in wall louvre, extra-heavy-duty series, with adjustable blades

BUILT-IN WALL  
LOUVRE

ALUMINIUM



412 with filter option

## MATERIAL

- Made from aluminium sections: AlMgSi 0.5 (according to EN 12020-2)
- Stainless steel 304 mesh [6 x 6 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

## DIMENSIONS

- Depth to fit: 82 mm
- Maximum width in one piece: 1300 mm
- Minimum dimensions: 300 x 290 mm
- Flange size: 50 mm
- Preferred height = [multiple of 100] + 290 mm

*Remark: the minimum height is dependant of the control option (see next p.).*

## FIXING

- Brackets ref. 429

## OPTIONS

- Stainless steel insect screen 304 - 2.3 x 2.3 / 10 x 10 / 20 x 20 / without mesh
- Wire mesh in 316
- Without flange
- Glazed-in louvre 427GL [see p. 104]

## CONTROL OPTIONS

- 427/1 Manual
- 427/2 Cable
- 427/3 Ultraflex
- 427/4 Motor 230 - 24V
- 427/5 Air pressure
- 427/6 Spring-return actuator 24V

## TYPICAL APPLICATIONS

- Powers stations
- High buildings
- Controlled ventilation
- Production halls



Type 427/2



Type 427/3



Type 427/4



Type 427/5



Type 427/6

## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		(EN 13030)
K-factor [entry]		11.41
K-factor [discharge]		11.65
C <sub>e</sub> coefficient		0.296
C <sub>d</sub> coefficient		0.293
Technical data		
Visual free area		88%
Physical free area		53%



## TECHNICAL DRAWINGS

Cross-sections

**Type 427/1**  
Manual control  
Minimum louvre height: 290 mm

**Type 427/2**  
Cable control up to 2250 mm  
Minimum louvre height: 390 mm

**Type 427/3**  
Ultraflex control of max. 7 m  
Minimum louvre height: 690 mm

**Type 427/4**  
220 V/24 V motor control  
Minimum louvre height: 390 mm

**Type 427/5**  
Air pressure control  
Minimum louvre height: 390 mm

Wall brackets no. 429

Without flange no. 427ZF

# 451

## Built-in wall louvre, heavy-duty series

BUILT-IN WALL  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 mesh [6 x 6 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 66 mm
- Depth to fit: 60 mm
- Flange size: 25 mm
- Minimum dimensions: 300 x 300 mm

### FIXING

- Brackets ref. 429
- For louvres larger than approx. 3 m<sup>2</sup>, a reinforcing mullion is required to suit span and windload

### OPTIONS

- Water channel
- Drainage profile
- Removable insect mesh
- Filter
- Without flange
- Stainless steel 304 insect screen 2,3x2,3 or mesh [10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

### TYPICAL APPLICATIONS

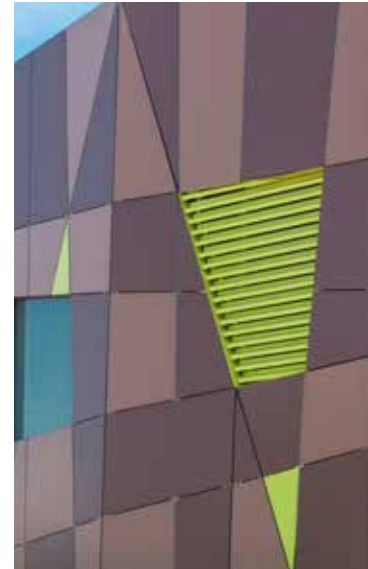
- Industrial, commercial with large blade pitch



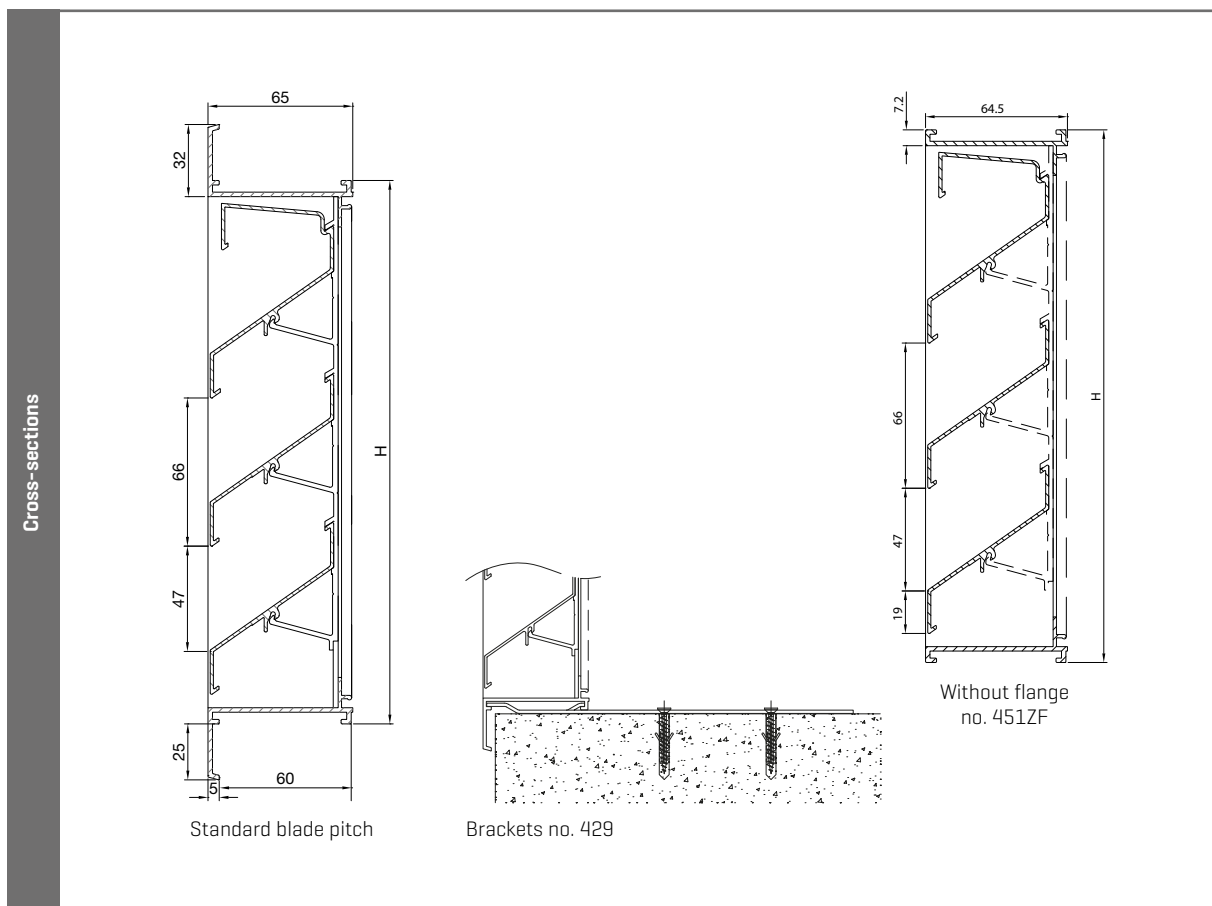
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		14.24
K-factor [discharge]		11.77
C <sub>e</sub> coefficient		0.265
C <sub>d</sub> coefficient		0.291
Technical data		
Visual free area		70%
Physical free area		49%



## TECHNICAL DRAWINGS



# 453

## Built-in wall louvre, heavy-duty series, with aluminium coil blades

BUILT-IN WALL  
LOUVRE

ALUMINIUM



### MATERIAL

- Frame made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Roll-formed aluminium coil blades
- Stainless steel 304 mesh [6 x 6 mm]
- Finishing: powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 65 mm
- Depth to fit: 60 mm
- Flange size: 25 mm
- Minimum dimensions: 300 x 300 mm

### FIXING

- Brackets ref. 429
- For louvres larger than approx. 3 m<sup>2</sup>, a reinforcing mullion is required to suit span and windload

### OPTIONS

- Water channel
- Drainage profile
- Filter
- Without flange
- Stainless steel 304 insect screen 2,3x2,3 or mesh [10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

### TYPICAL APPLICATIONS

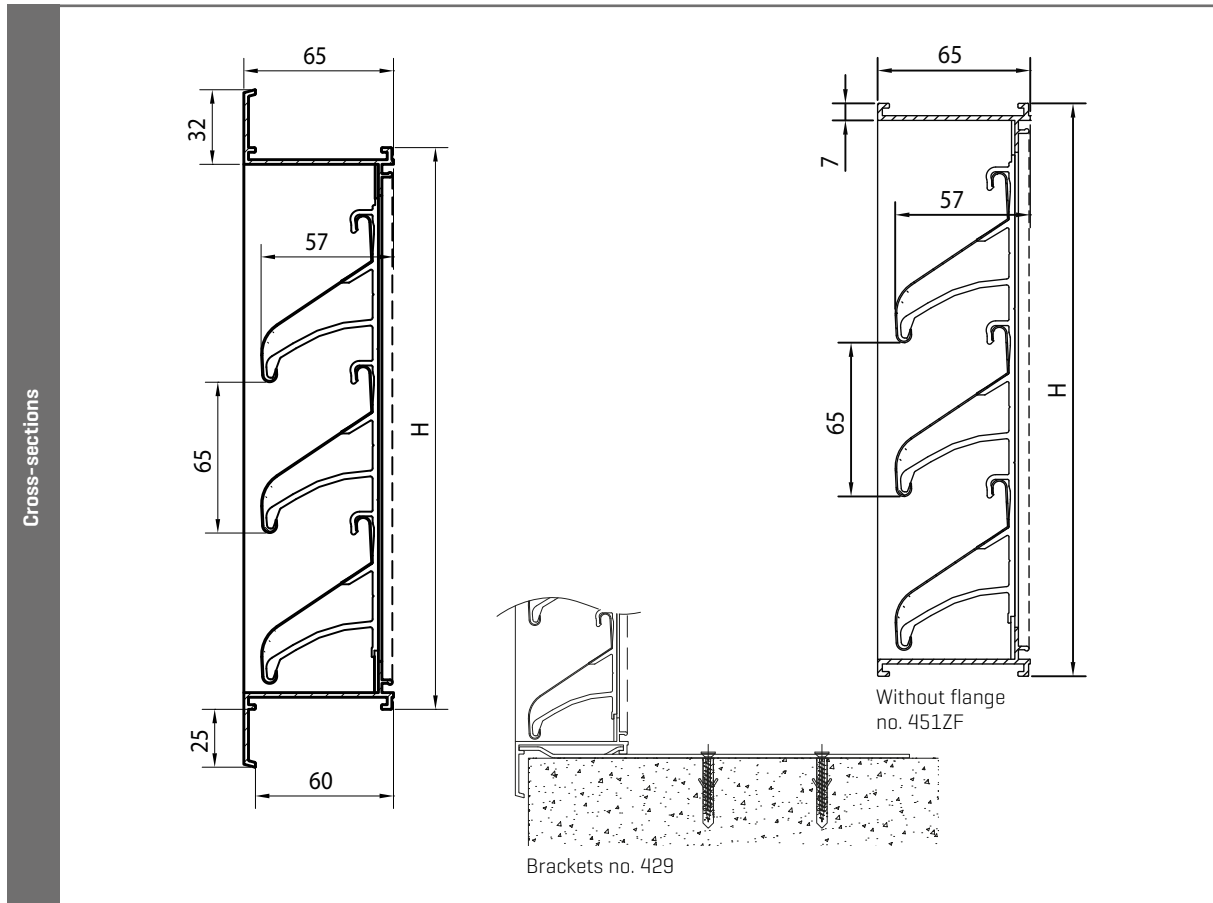
- Aesthetical

## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		13.92
K-factor [discharge]		17.22
C <sub>e</sub> coefficient		0.268
C <sub>d</sub> coefficient		0.241
Technical data		
Visual free area		69%
Physical free area		55%

## TECHNICAL DRAWINGS



# 457

## Built-in wall louvre, heavy-duty series

BUILT-IN WALL  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 mesh [6 x 6 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 75 mm
- Depth to fit: 60 mm
- Flange size: 25 mm
- Minimum dimensions: 300 x 300 mm

### FIXING

- Brackets ref. 429
- For louvres larger than approx. 3 m<sup>2</sup>, a reinforcing mullion is required to suit span and windload

### OPTIONS

- Water channel
- Drainage profile
- Removable insect mesh
- Filter
- Without flange
- Stainless steel 304 insect screen 2,3x2,3 or mesh [10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

### TYPICAL APPLICATIONS

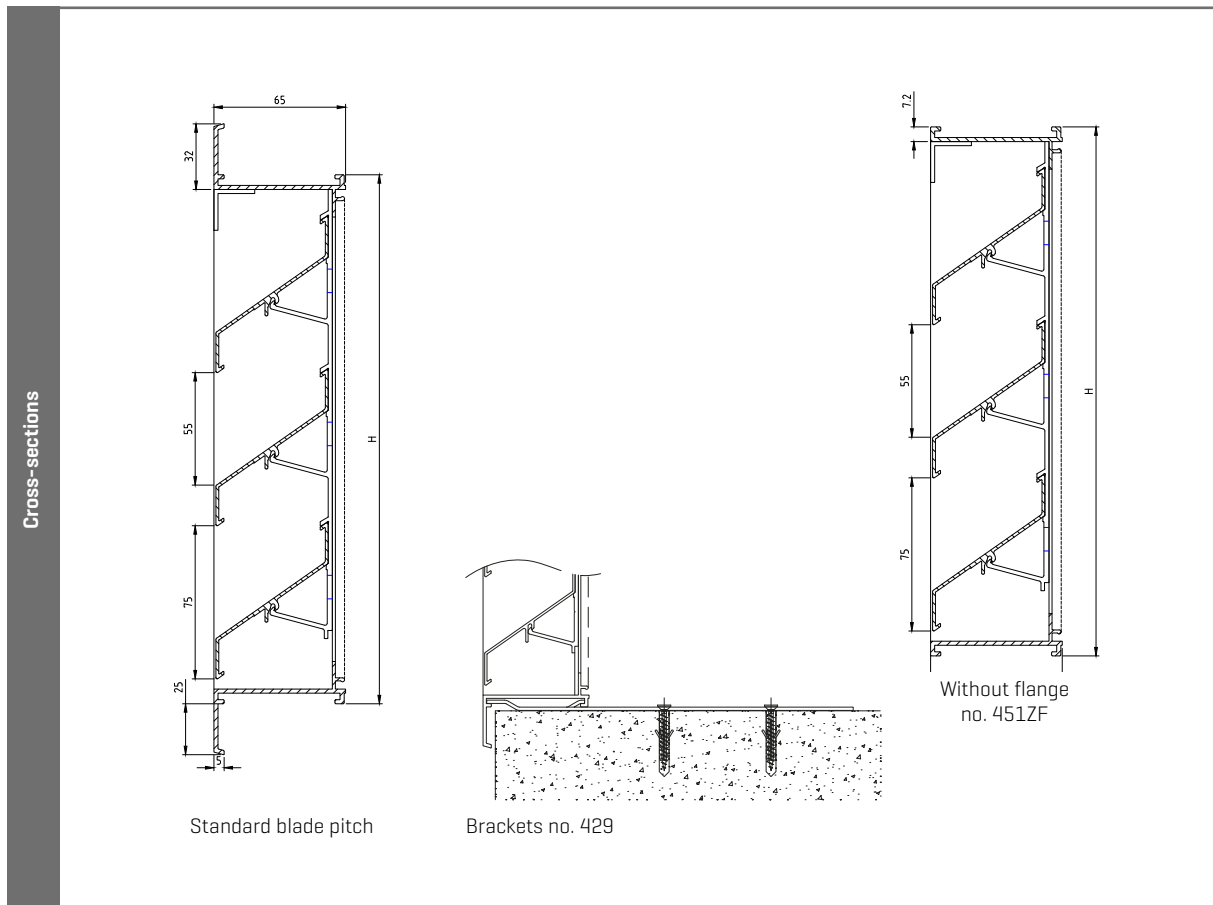
- Industrial, commercial with large blade pitch

## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		13,13
K-factor [discharge]		14,24
C <sub>e</sub> coefficient		0,276
C <sub>d</sub> coefficient		0,265
Technical data		
Visual free area		75%
Physical free area		52%

## TECHNICAL DRAWINGS



# 468 SA

## Sand-trap louvre

BUILT-IN WALL  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
  - Stainless steel 304 insect mesh [2.3 x 2.3 mm]
  - Finishing: anodized [20 micron] or powdercoated in any RAL or Syntha Pulvin colour [40 micron]
  - Vertically mounted blades. No rivets visible from the front.
  - Standard equipped with sand rejection sill, finished in the same colour as the louvre
- Note: when anodised, slight colour difference between sand rejection sill and louvre*

### DIMENSIONS

- Blade pitch: 85 mm
  - Depth to fit: 60 mm
  - Flange size: 25 mm
  - Minimum dimensions: 185 x 185 mm
  - Width = [multiple of 42,5] + 185mm
- Remark :*
- symmetric louvre when the multiple is even
  - asymmetric louvre when the multiple is odd
- Maximum dimensions: 2012,5 x 1200 mm
- Remark : at a maximum wind load of 2kN/m²*

### FIXING

- Brackets ref 429 included

### OPTIONS

- Anti-dust filter cassette class G4
- Controllable airflow modules mounted on backside [type / VA]
- Without flange
- Stainless steel 304 or mesh [6x6/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

### TYPICAL APPLICATIONS

- Coastal area
- Dusty & polluted areas
- HVAC
- Power stations & high-voltage stations



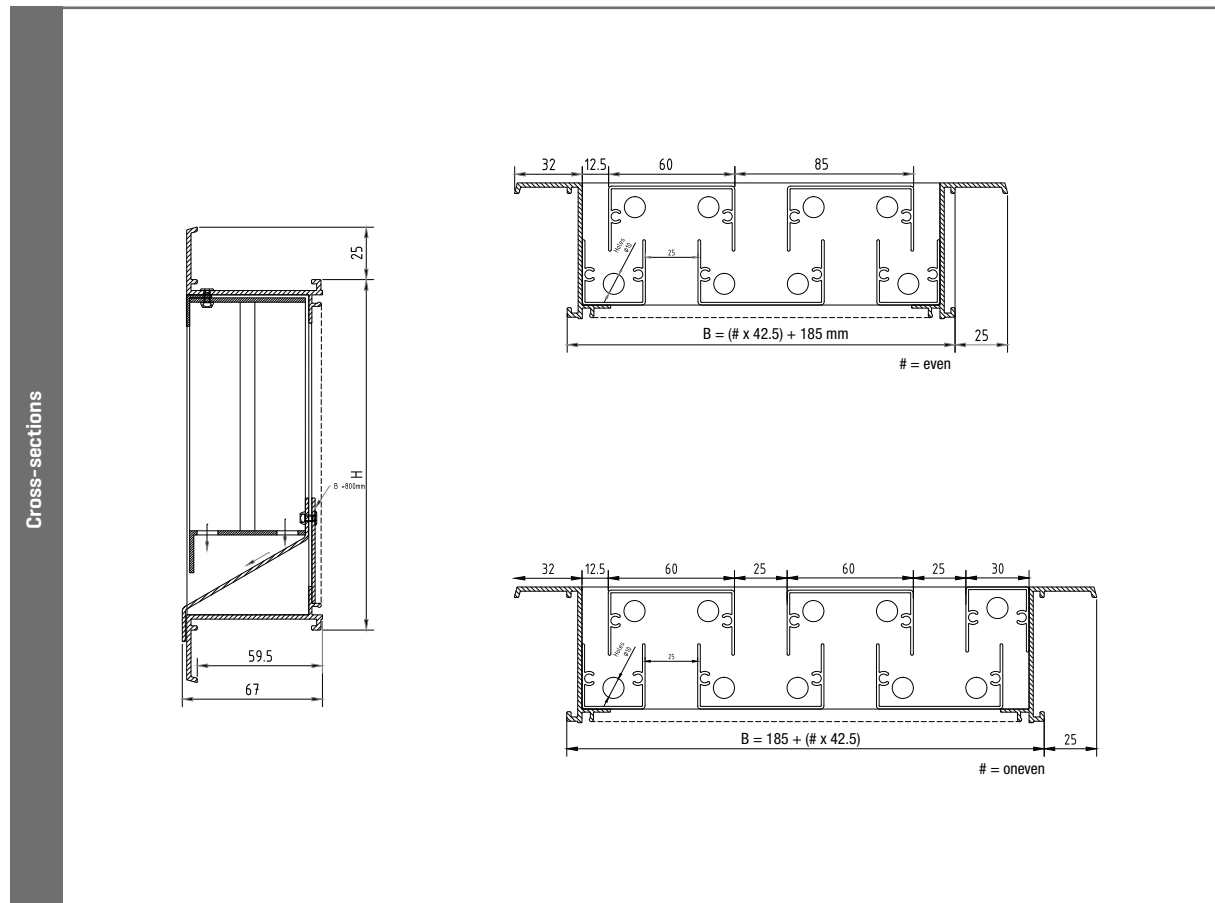
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Sand-resistance		(EN 13181)
Suction air velocity		
0 m/s		97%
0.5 m/s		94%
Airflow		(EN 13030)
K-factor [entry]		115.62
K-factor [exhaust]		115.62
C <sub>s</sub> coefficient		0.093
C <sub>d</sub> coefficient		0.093
Technical data		
Visual free area		29%
Physical free area		29%
IP class		IP2XD



## TECHNICAL DRAWINGS



# 480

## High-airflow built-in wall louvres

BUILT-IN WALL  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 mesh [6 x 6 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 60 mm
- Depth to fit: 82 mm
- Flange size: 50 mm
- Minimum dimensions: 300 x 300 mm

### FIXING

- Brackets ref. 429
- For louvres larger than approx. 3 m<sup>2</sup>, a reinforcing mullion is required to suit span and windload

### OPTIONS

- Water channel
- Drainage profile
- Removable mesh
- Filter
- Without flange
- Glazed-in louvre 483 [see p. 98]
- Stainless steel 304 insect screen 2,3x2,3 or mesh [10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

### TYPICAL APPLICATIONS

- Underground parking
- Industrial applications



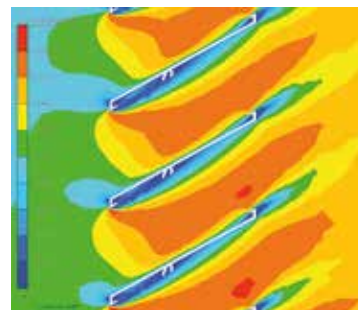


## TECHNICAL SPECIFICATIONS

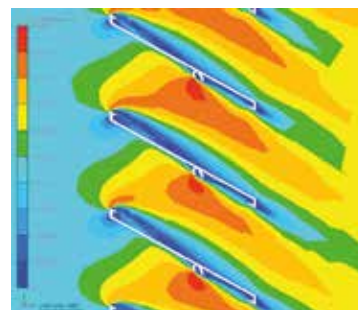
All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow	[EN 13030]
K-factor [entry]	4,60
K-factor [discharge]	5,17
C <sub>e</sub> coefficient	0,466
C <sub>d</sub> coefficient	0,440
Technical data	
Visual free area	90%
Physical free area	76%
IP class [louvre with mesh; electrical installation at least 180 mm from louvre]	IP2XD

### AIRFLOW

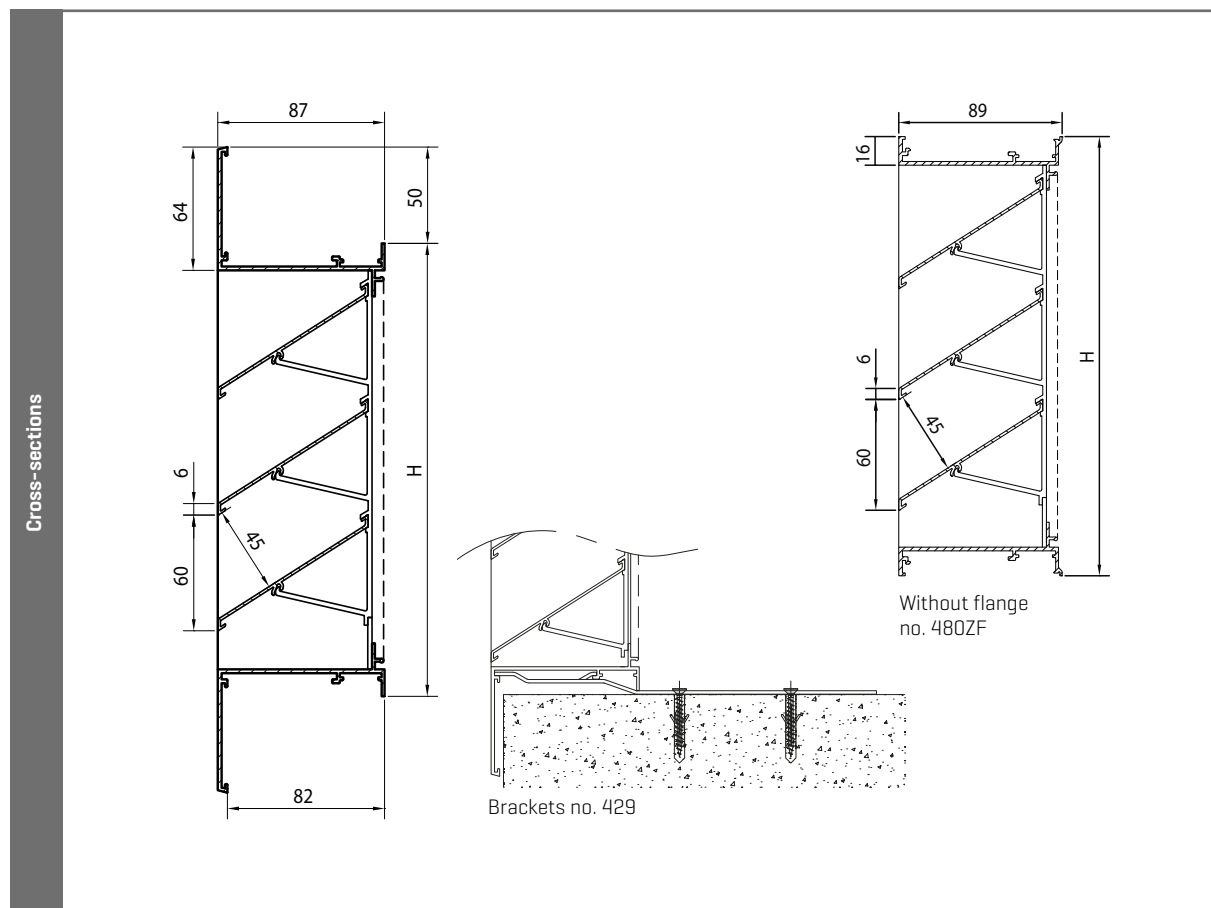


Supply



Discharge

## TECHNICAL DRAWINGS



# 481

## Built-in wall louvre, heavy-duty series

BUILT-IN WALL  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 insect screen [2.3 x 2.3 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 50 mm
- Depth to fit: 46 mm
- Flange size: 40 mm
- Minimum dimensions: 150 x 150 mm

### FIXING

- Brackets ref. 1428
- For louvres larger than approx. 3 m<sup>2</sup>, a reinforcing mullion is required to suit span and windload

### OPTIONS

- Water channel
- Drainage profile
- Removable mesh
- Filter
- Without flange
- Glazed-in louvre 484 [see p. 100]
- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

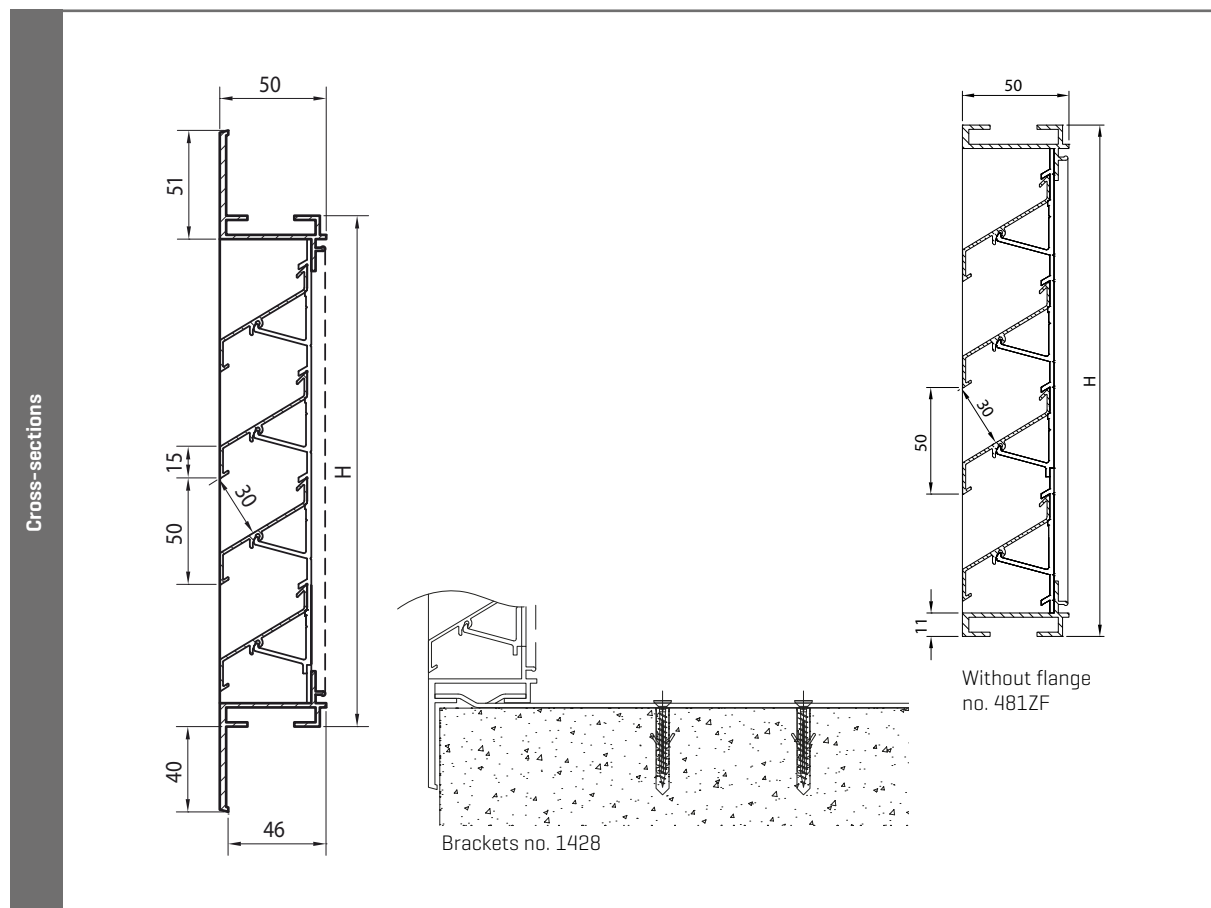
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		9.59
K-factor [discharge]		10.01
C <sub>e</sub> coefficient		0.323
C <sub>d</sub> coefficient		0.316
Technical data		
Visual free area		70%
Physical free area		60%
IP class [louvre with mesh; electrical installation at 105 mm at least]		IP2XD



## TECHNICAL DRAWINGS

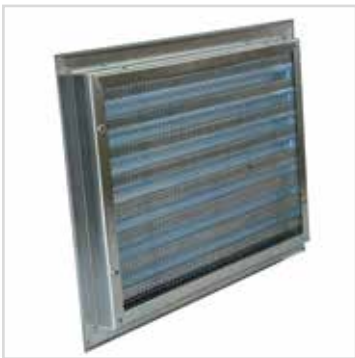


# 511

## Built-in wall louvre, galvanised steel

BUILT-IN WALL LOUVRE

GALVANISED STEEL



### MATERIAL

- Made from steel plate
- Electroplating: 10 micron FeZn12C
- Steel mesh [5 x 5 mm]
- Finishing: no powder-coating possible

### DIMENSIONS

- Blade pitch: 34 mm
- Depth to fit: 28 mm
- Flange size: 25 mm
- No made to measure

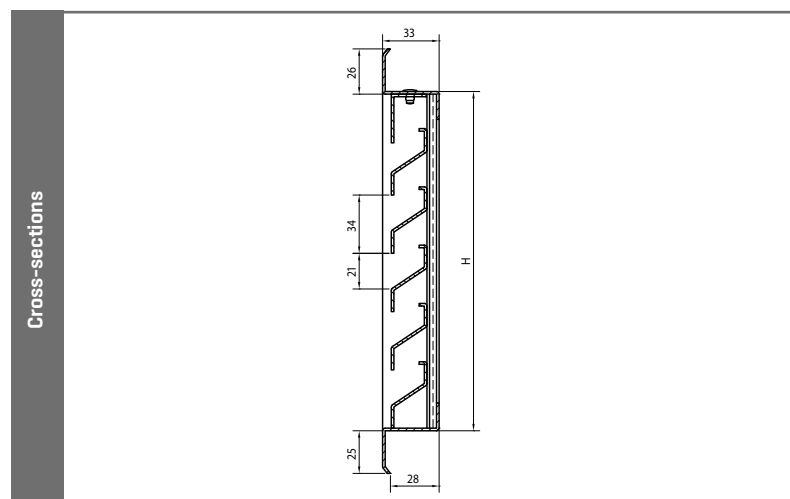
### TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		92.91
K-factor [discharge]		84.73
C <sub>e</sub> coefficient		0.104
C <sub>d</sub> coefficient		0.109
Technical data		
Visual free area		61%
Physical free area		43%
Dimensions [W x H] mm		Galvanised steel
200 x 200		00051122
300 x 300		00051133
400 x 200		00051142

Note: only available in the sizes listed above.

### TECHNICAL DRAWINGS





Built-in wall louvre, heavy-duty series 481 (see p. 50)

# 521

## Wall louvre, heavy-duty series, galvanised steel

BUILT-IN WALL  
LOUVRE

GALVANISED  
STEEL



### MATERIAL

- Made from steel plate
- Electroplating: 10 micron FeZn12C
- Finishing: powder coating in any RAL or Syntha Pulvin colour (min 40 microns)
- Steel mesh [13 x 13 mm]

### DIMENSIONS

- Pitch: 50 mm
- Depth to fit: 43 mm
- Flange size: 40 mm
- Minimum dimensions: 200 x 200 mm
- Maximum dimensions: height 2500 mm; width 2100 mm

### FIXING

- Brackets pre-fitted to the frame

### TYPICAL APPLICATIONS

- Basic louvre
- Economic solution
- Containers
- Paintable

### STOCK MODELS

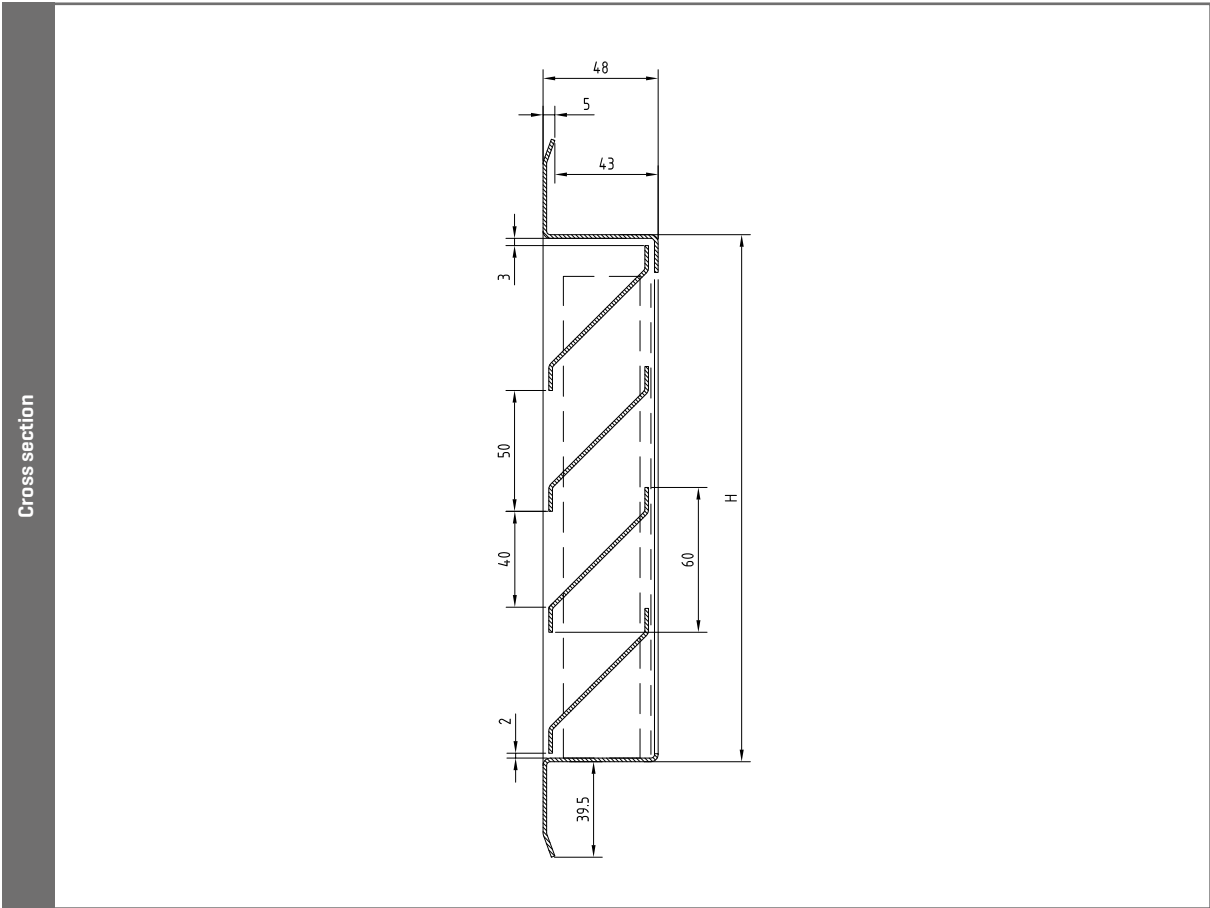
Dimensions [W x H] mm	Galvanised steel
400 x 400	00152144
500 x 500	00152155
600 x 600	00152166
1000 x 1000	15211010

### TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		14.91
K-factor [discharge]		16.00
C <sub>e</sub> coefficient		0.259
C <sub>d</sub> coefficient		0.250
Technical data		
Visual free area		79%
Physical free area		54%

### TECHNICAL DRAWINGS



# 621

## Wall louvre, stainless steel

BUILT-IN WALL  
LOUVRE

STAINLESS  
STEEL



### MATERIAL

- Made from stainless steel 316 L
- Stainless steel 304 mesh (13 x 13 mm)
- Lacquering not possible

### DIMENSIONS

- Pitch: 50 mm
- Depth to fit: 43 mm
- Flange size: 40 mm
- Minimum dimensions: 250 x 250 mm
- Maximum dimensions: 2000 x 2000 mm

### FIXING

- Brackets pre-fitted to the frame

### TYPICAL APPLICATIONS

- Food sector
- Chemical sector
- Hospitals
- Environment with high corrosion

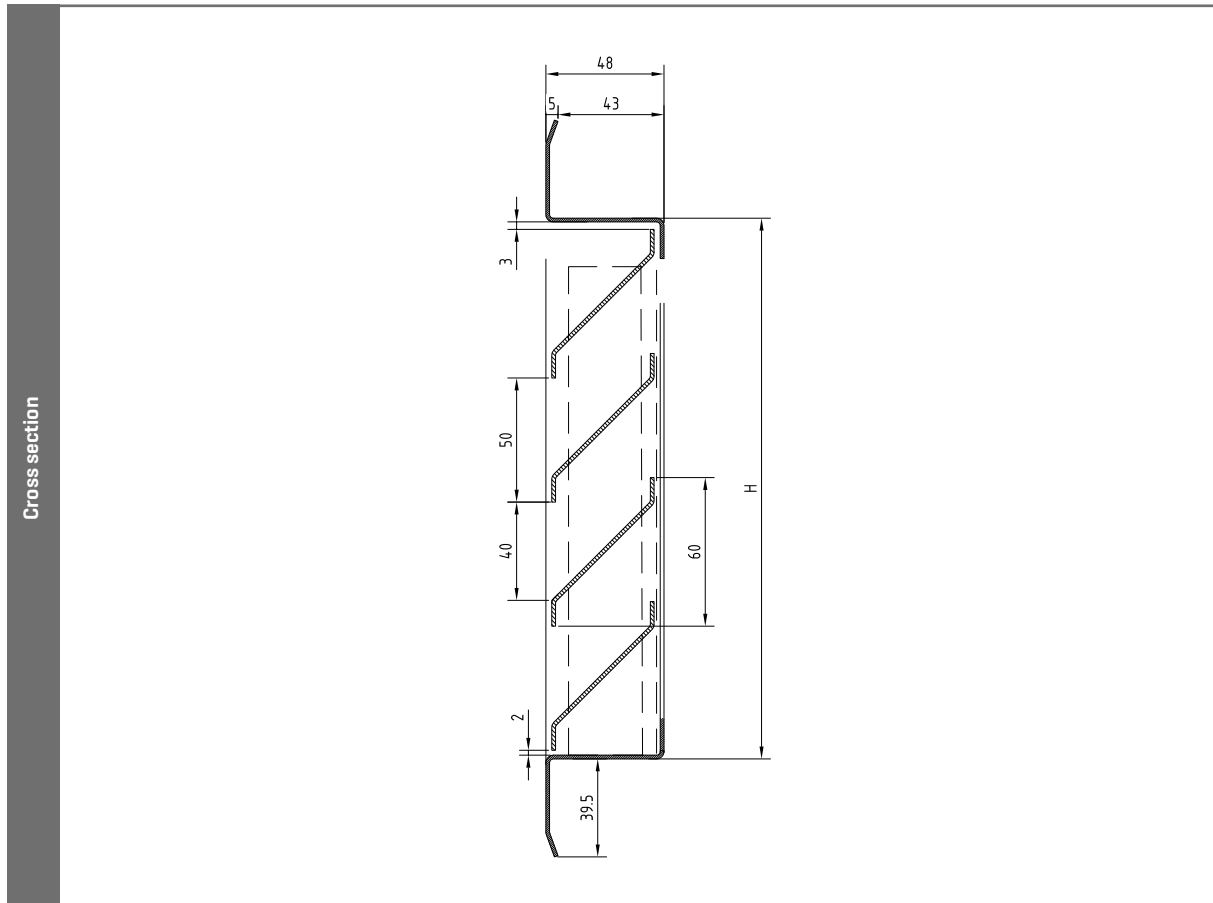


## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		14.91
K-factor [discharge]		16.00
C <sub>e</sub> coefficient		0.259
C <sub>d</sub> coefficient		0.250
Technical data		
Visual free area		79%
Physical free area		54%

## TECHNICAL DRAWINGS



# 450

## Extreme weatherable louvre

WATER-  
RESISTANT  
LOUVRE

ALUMINIUM



Louvre 450 delivers the best performance on watertightness combined with a very high airflow.

### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 insect mesh [2.3 x 2.3 mm]
- Finishing: anodized in satin colour [20 micron] or powder coated in any RAL or Syntha Pulvin colour [40 micron],
- Fitted with a water channel at top and bottom to enhance drainage

### DIMENSIONS

- Blade pitch: 50 mm
- Depth to fit: 159 mm
- Flange size: 52 mm
- Minimum dimensions: 200 x 230 mm
- Preferred height: [multiple of 50] + 230 mm

### FIXING

- Brackets ref. 1428 included

### OPTIONS

- Without flange
- Glazing-in louvre available on request.
- In combination with the L.050WS dummy blade
- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316
- Filter

### TYPICAL APPLICATIONS

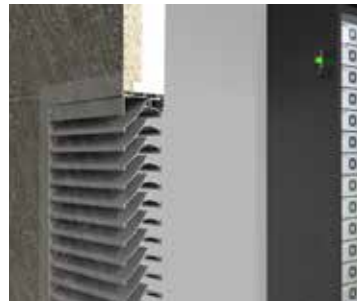
- Data and IT centres
- Power stations
- Substations
- Coastal applications



## TECHNICAL SPECIFICATIONS

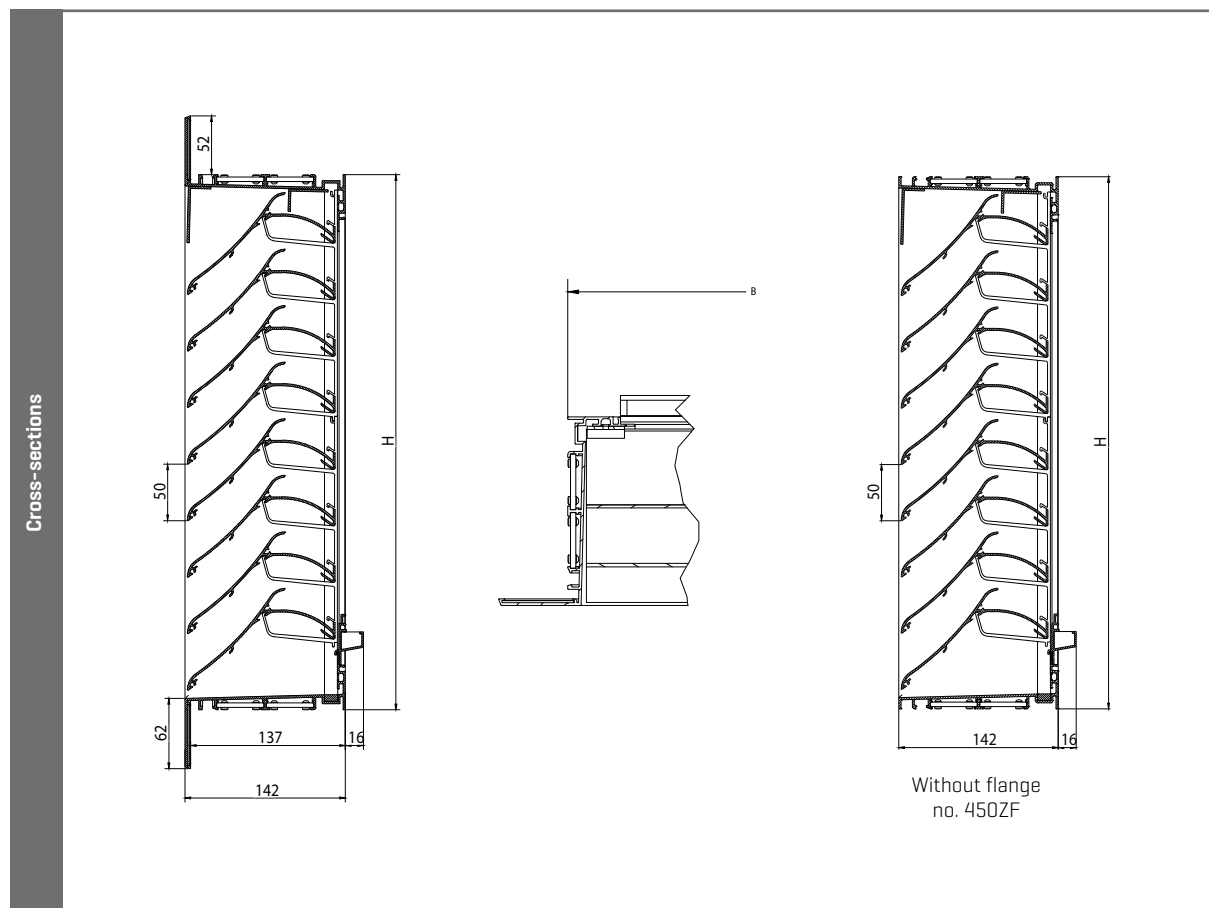
All properties are valid for the standard version of the Louvre, unless otherwise stated.

<b>Weatherability</b>		[EN 13030]
Class [details see p. 12]		A2 [3 m/s]
<b>Airflow</b>		[EN 13030]
K-factor [entry]		10.47
K-factor [discharge]		16.52
C <sub>e</sub> coefficient		0.309
C <sub>d</sub> coefficient		0.246
<b>Technical data</b>		
Visual free area		±80%
Physical free area		57%
IP class		IP44
IP class for non-standard versions		IP2XD



Water channel

## TECHNICAL DRAWINGS



# 450V

## Extreme weatherable louvre

WATER-  
RESISTANT  
LOUVRE

ALUMINIUM



Extremely water-resistant louvre with vertical blades combine an extreme water resistance with an incredibly high air flow.

### MATERIAL

- Made from aluminium profiles AlMgSi 0.5 [in accordance with EN 12020-2]
- Standard stainless steel insect screen 304 - 2.3 x 2.3 mm
- Finishing: anodized in satin colour [20 micron] or powdercoated in any RAL or Syntha Pulvin colour [40 micron]
- Fitted with water channel as standard

### DIMENSIONS

- Blade pitch: 50 mm
- Depth to fit: 159 mm
- Flange size: 52 mm
- Minimum dimensions W x H: 230 x 200 mm
- Preferred width: [multiples of 50] + 230 mm

### FIXING

- Wall brackets no. 1428 included
- A reinforcing back structure is required for louvres that are wider than 2395 mm

### OPTIONS

- Stainless steel 304 mesh - 6 x 6 mm [please note, this will impact the properties]
- Wire mesh in 316
- Without flange
- Removable insect screen
- Filter
- Glazed-in louvre upon request

### TYPICAL APPLICATIONS

- Data centres
- Electric power stations
- Hospitals
- IT applications



## TECHNICAL SPECIFICATIONS

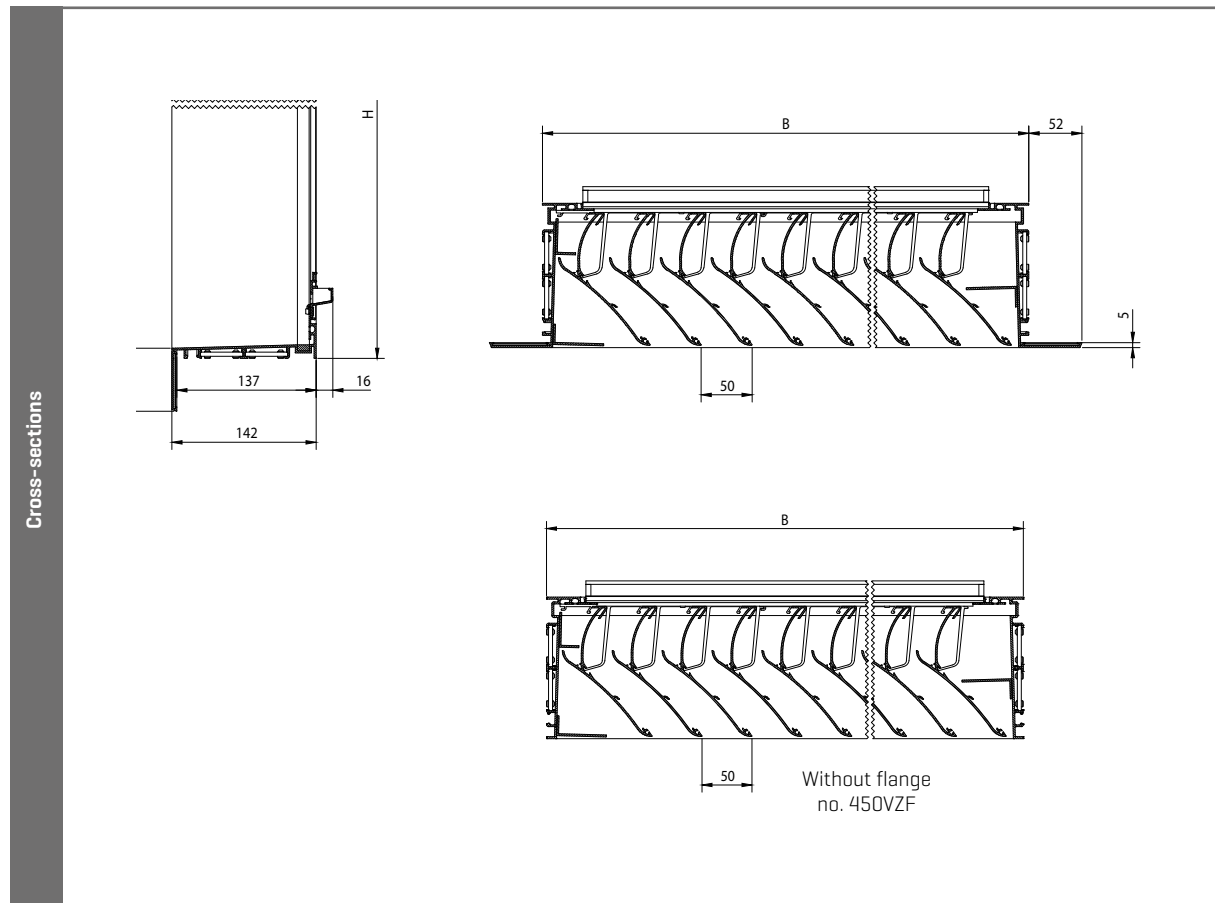
All properties are valid for the standard version of the Louvre, unless otherwise stated.

<b>Weatherability</b>		[EN 13030]
Class [details see p. 12]		A2 [4 m/s]
<b>Airflow</b>		[EN 13030]
K-factor [entry]		10.75
K-factor [discharge]		16.52
C <sub>e</sub> coefficient		0.305
C <sub>d</sub> coefficient		0.246
<b>Technical data</b>		
Visual free area		±80%
Physical free area		57%
IP class		IP2XD



Water channel

## TECHNICAL DRAWINGS



# 452

## Wall louvre, heavy-duty series with chevron section blades

WATER-  
RESISTANT  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 mesh [6 x 6 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 66 mm
- Depth to fit: 82 mm
- Flange size: 50 mm
- Minimum dimensions: 300 x 310 mm

### FIXING

- Brackets ref. 429
- For louvres taller than approx. 3 m<sup>2</sup>, a reinforcing mullion is required to suit span and windload

### OPTIONS

- Water channel
- Drainage profile
- Removable insect mesh
- Filter
- Without flange
- Glazed-in louvre available on request
- Stainless steel 304 insect screen 2.3x2.3 mm or mesh [10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

### TYPICAL APPLICATIONS

- Application where strength, stick-proof and excellent weatherability are important selection criteria
- High-voltage cabins
- HVAC
- No see-through

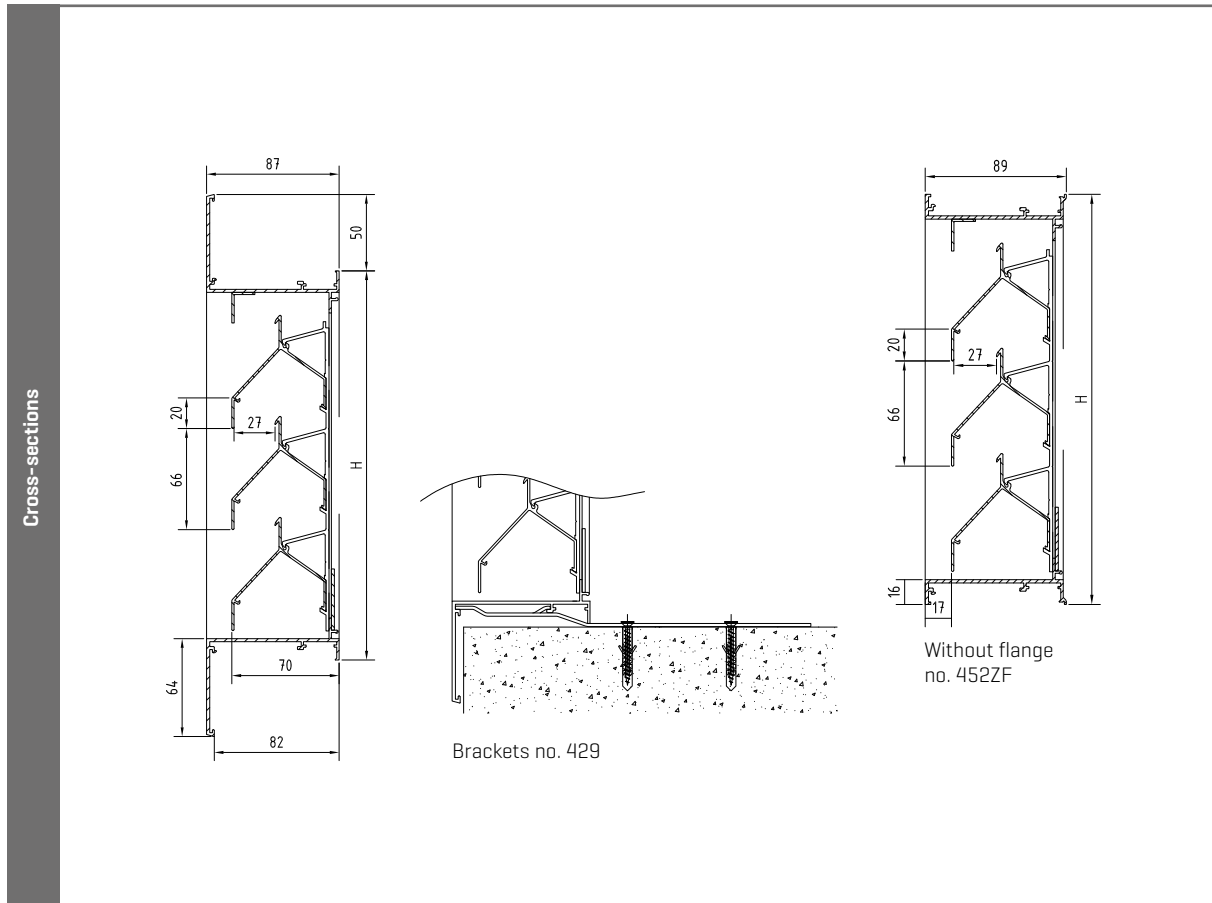


## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

<b>Weatherability</b>		[EN 13030]
Class for version with mesh 6x6 mm and water channel <i>[details see p. 12]</i>		A4 [1 m/s]
<b>Airflow</b>		[EN 13030]
K-factor [entry]		66.1
K-factor [discharge]		79.7
C <sub>e</sub> coefficient		0.123
C <sub>d</sub> coefficient		0.112
<b>Technical data</b>		
Visual free area		70%
Physical free area		41%
IP class		IP2XD
IP class for version with mesh 2.3x2.3 mm and water channel (electrical installation at least 250 mm)		IP44

## TECHNICAL DRAWINGS



# 452V

## Wall louvre, heavy-duty series with vertical chevron section blades

WATER-  
RESISTANT  
LOUVRE

ALUMINIUM



Vertical blades - 452V

### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Insect screen [2.3 x 2.3 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]
- Standard equipped with water channel

### DIMENSIONS

- Blade pitch: 66 mm
- Depth to fit: 82 mm
- Flange size: 50 mm
- Minimum dimensions: 310 x 300 mm

### FIXING

- Brackets ref. 429
- For louvres taller than approx. 3 m<sup>2</sup>, a reinforcing mullion is required to suit span and windload

### OPTIONS

- Drainage profile
- Removable insect mesh
- Filter
- Without flange
- Glazed-in louvre available on request
- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

### TYPICAL APPLICATIONS

- Application where strength, stick-proof and excellent weatherability are important selection criteria
- High-voltage cabins
- HVAC
- No see-through



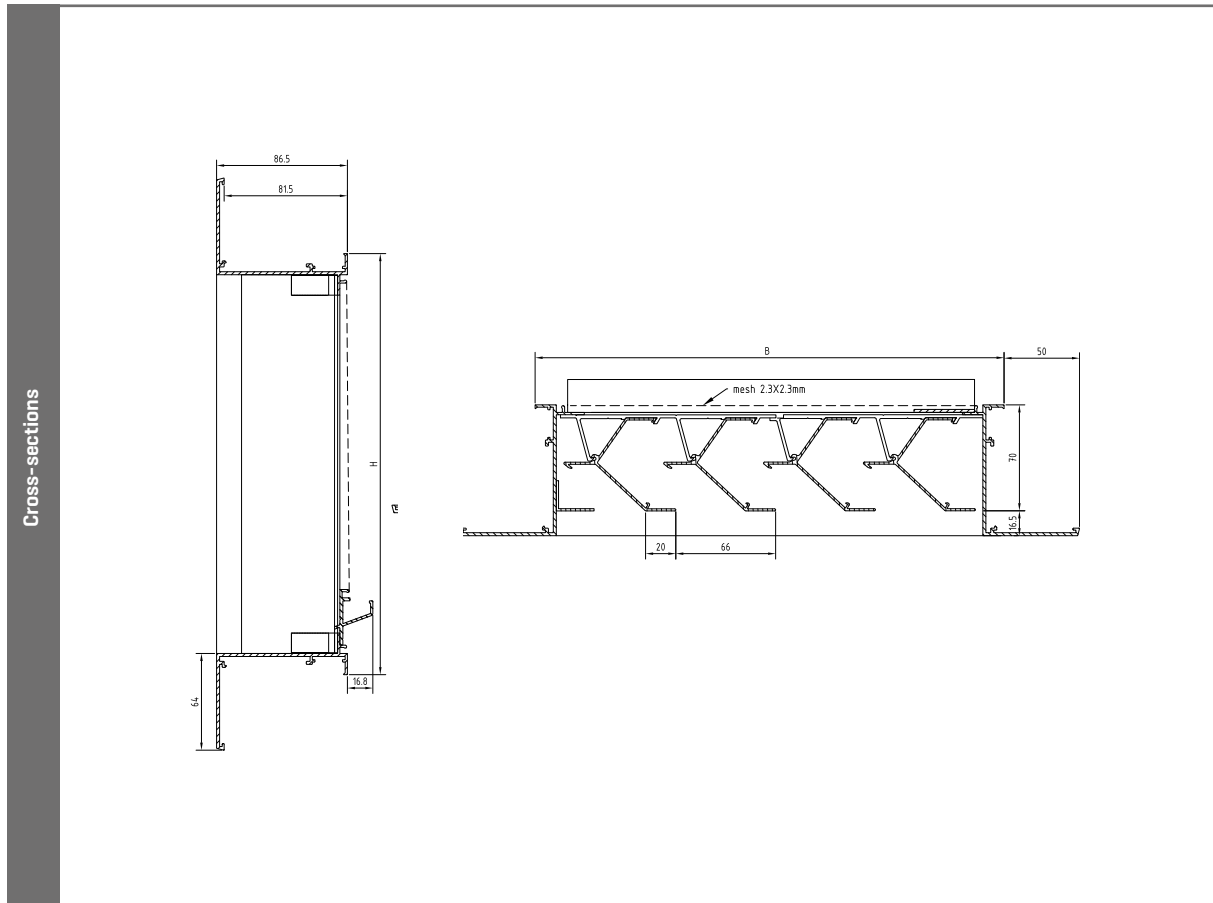


## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

<b>Weatherability</b>		[EN 13030]
Class for execution with mesh 2.3x2.3 mm and water channel (details see p. 12)		A4 [1.5 m/s]
<b>Airflow</b>		[EN 13030]
K-factor [entry]		60.1
K-factor [discharge]		79.9
C <sub>e</sub> coefficient		0.129
C <sub>d</sub> coefficient		0.114
<b>Technical data</b>		
Visual free area		70%
Physical free area		41%
IP class		IP44
IP class for non-standard versions		IP2XD

## TECHNICAL DRAWINGS



# 475

Louvre with excellent weatherability properties,  
ideal for discharge applications

WATER-  
RESISTANT  
LOUVRE

ALUMINIUM



## MATERIAL

- Made from aluminium sections: AlMgSi 0,5 [according to EN 12020-2]
- Stainless steel 304 insect mesh [2,3 x 2,3 mm]
- Finishing: anodized in satin colour [20 micron] or powder coated in any RAL or Syntha Pulvin colour [40 micron]
- Fitted with a water channel to enhance drainage

## DIMENSIONS

- Blade pitch: 75 mm
- Depth to fit: 82 mm
- Flange size: 50 mm
- Minimum dimensions: 230 x 295 mm
- Maximum dimension: 4000 mm [W or H] with  $S_{max.} = 3,5 \text{ m}^2$
- Preferred height: [multiple of 75] + 295 mm

## FIXING

- Brackets ref. 429 included

## OPTIONS

- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without [remark, this influences the properties]
- Drainage profile
- Insect screen or mesh in stainless steel 316
- Filter
- Without flange
- Glazed-in louvre available on request: *see p. 68*

## TYPICAL APPLICATIONS

- Industrial applications where good ventilation needs to be combined with excellent weatherability

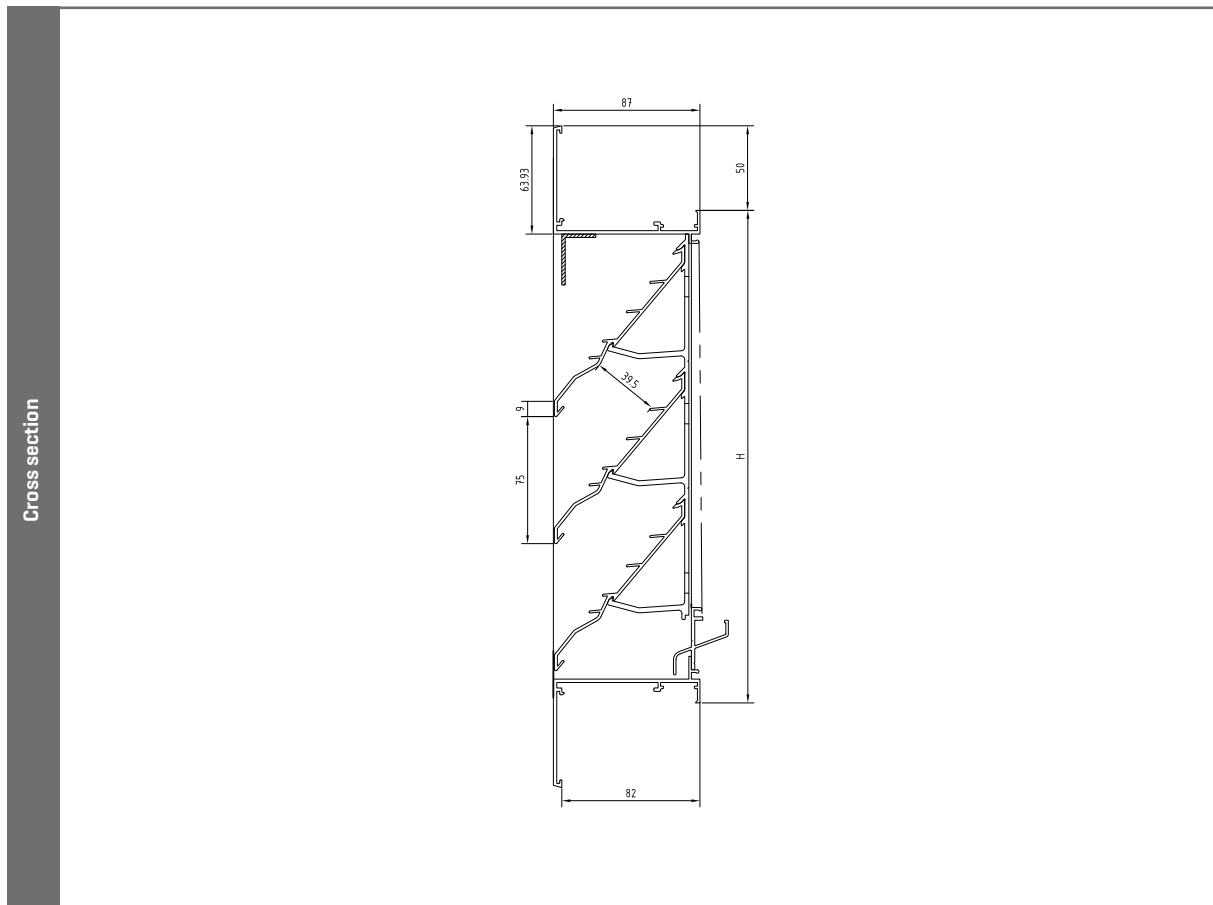


## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

<b>Weatherability</b>		[EN 13030]
Class [details see p. 12]		A2 [0 m/s]
<b>Airflow</b>		[EN 13030]
K-factor [entry]		10.89
K-factor [discharge]		10.41
C <sub>e</sub> coefficient		0.303
C <sub>d</sub> coefficient		0.310
<b>Technical data</b>		
Physical free area		53%

## TECHNICAL DRAWINGS



# 475GL

Glazed-in louvre with excellent weatherability properties,  
ideal for discharge applications

WATER-  
RESISTANT  
LOUVRE

ALUMINIUM



## MATERIAL

- Made from aluminium sections: AlMgSi 0,5 [according to EN 12020-2]
- Stainless steel 304 insect mesh [2,3 x 2,3 mm]
- Finishing: anodized in satin colour [20 micron] or powder coated in any RAL or Syntha Pulvin colour [40 micron]
- Fitted with a water channel to enhance drainage

## DIMENSIONS

- Blade pitch: 75 mm
- Frame thickness: 24 mm [thicknesses from 8 till 50 mm upon request]
- Minimum dimensions:
  - 475GL/24: 330 x 380 mm
  - 475GL/8-50: 330 x 395 mm
- Maximum dimension: 4000 mm [W or H] with Smax. = 3,5 m<sup>2</sup>
- Preferred height:
  - 475GL/24: [multiple of 75] + 380 mm
  - 475GL/8-50: [multiple of 75] + 395 mm

## FIXING

- Suitable for 24 mm glazing sections. Other thicknesses on request.

## OPTIONS

- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without [remark, this influences the properties]
- Insect screen or mesh in stainless steel 316
- Removable insect mesh
- Filter

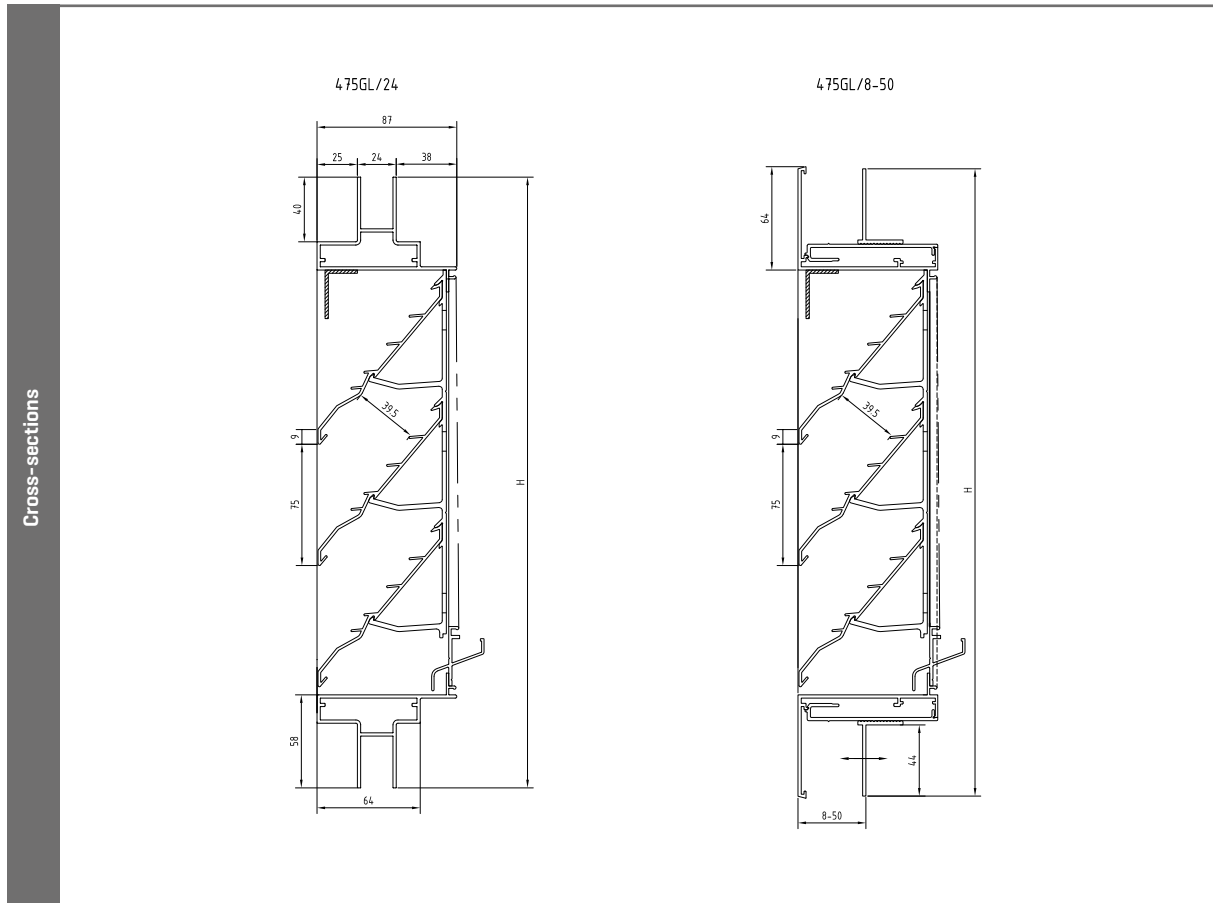


## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

<b>Weatherability</b>		[EN 13030]
Class [details see p. 12]		A2 [0 m/s]
<b>Airflow</b>		[EN 13030]
K-factor [entry]		10.89
K-factor [discharge]		10.41
C <sub>e</sub> coefficient		0.303
C <sub>d</sub> coefficient		0.310
<b>Technical data</b>		
Visual free area		76%
Physical free area		53%

## TECHNICAL DRAWINGS



# 491

## 'Storm' wall louvre

WATER-  
RESISTANT  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 mesh [6 x 6 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 33 mm
- Depth to fit: 29 mm
- Flange size: 21 mm
- Minimum dimensions: 100 x 100 mm

### FIXING

- Brackets ref. 418
- Spring clips ref. 419 available on request [small dimensions]

### OPTIONS

- Stainless steel 304 mesh [2,3x2,3/10x10/20x20 mm] or without
- Water channel
- Drainage profile
- Insect screen or mesh in stainless steel 316
- Removable mesh
- Filter
- Without flange
- Welded blades on frame [only RAL finish]
- Glazed-in storm louvre 494 [see p. 102]

### TYPICAL APPLICATIONS

- Good weatherability combined with low airflow, applications with a lot of wind, coastal area
- Snow resistant

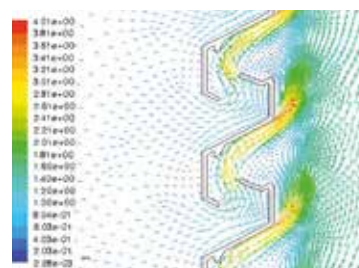


## TECHNICAL SPECIFICATIONS

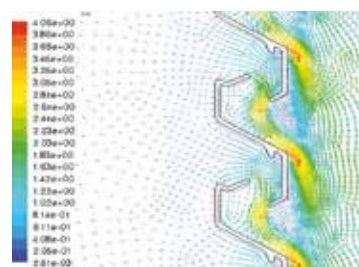
All properties are valid for the standard version of the Louvre, unless otherwise stated.

Weatherability		[EN 13030]
Class for version with mesh 6x6 mm and water channel <i>[details see p. 12]</i>		A4 [0.5 m/s]
Airflow		[EN 13030]
K-factor [entry]		123.5
K-factor [discharge]		118.1
C <sub>e</sub> coefficient		0.090
C <sub>d</sub> coefficient		0.092
Technical data		
Visual free area		57%
Physical free area		26%
IP class		IP2XD
IP class for version with mesh 2.3x2.3 mm and water channel (electrical installation at least 150 mm)		IP44

### AIR FLOW

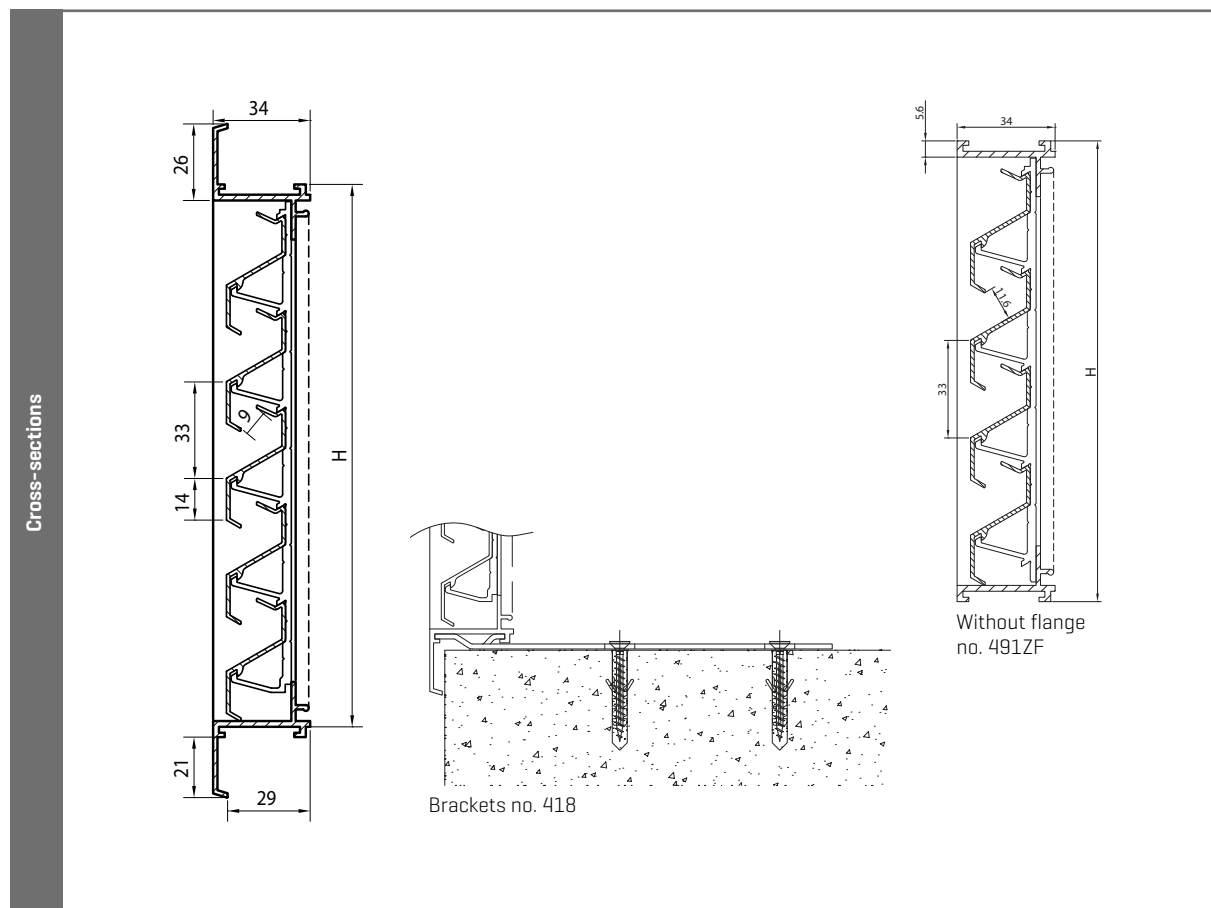


Supply



Extraction

## TECHNICAL DRAWINGS



# 431

## Surface-mounted wall louvre

SURFACE-MOUNTED LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 insect screen [2.3 x 2.3 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 33 mm
- Thickness: 29 mm
- Minimum dimensions: 120 x 120 mm

### FIXING

- Screws and plugs are included
- Louvre 432 is the removable version of louvre 431 [see p. 76]

### OPTIONS

- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without
- Burglar resistance louvre 431RC2 [see p. 122]
- Insect screen or mesh in stainless steel 316

### TYPICAL APPLICATIONS

- Fixed louvre
- Nightcooling
- Standard surface-mounted louvre

### STOCK MODELS

Dimensions (W x H) mm	Natural colour anodised	Renson Standard WHITE	STR 7016	STR 9005	Airflow at 2 Pa (m³/h)
165 x 165	00431111	00431116	00431113	00431119	23
225 x 225	00043122	00431226	00431223	00431229	50
325 x 325	00043133	00431336			118
425 x 425	00043144				215
525 x 525	00043155				342



## TECHNICAL SPECIFICATIONS

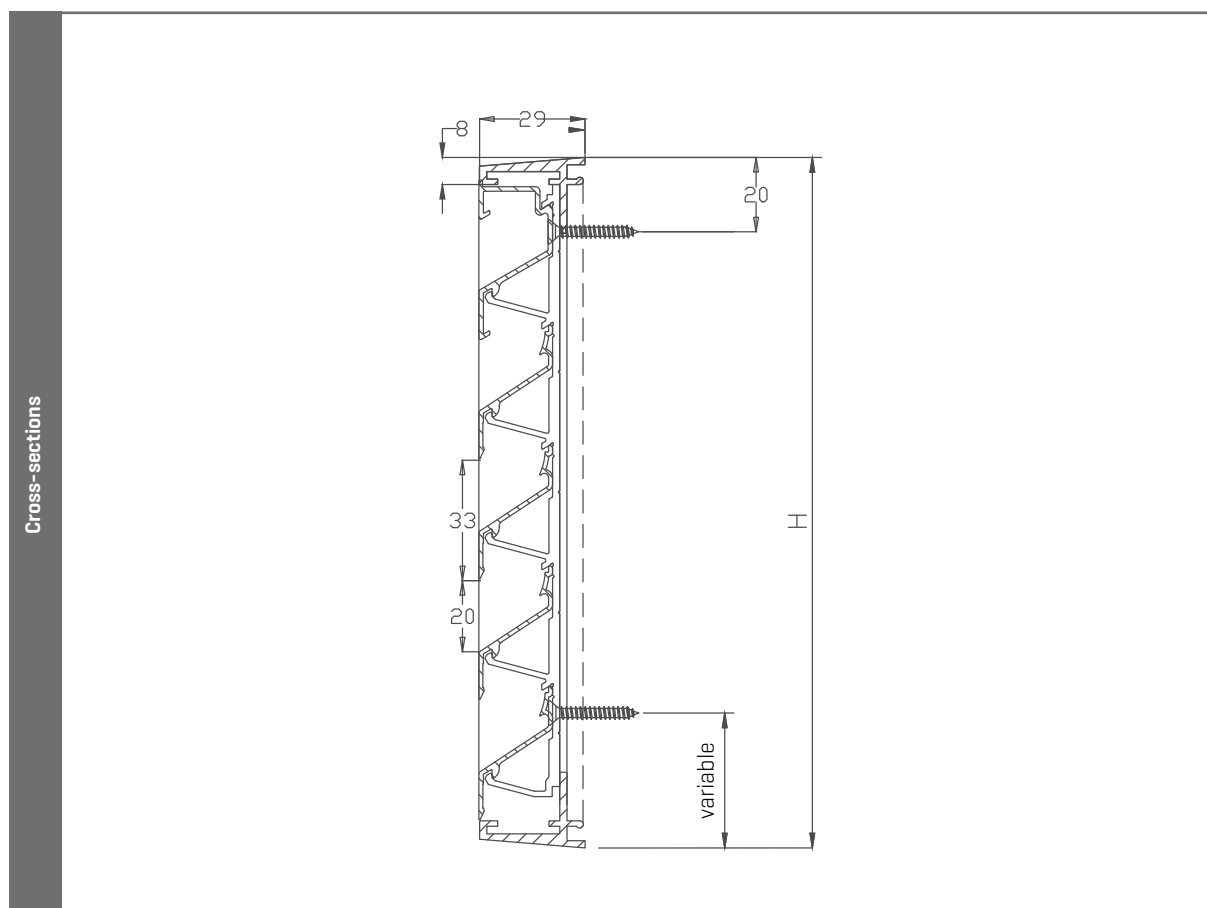
All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		20.47
K-factor [discharge]		19.58
C <sub>e</sub> coefficient		0.221
C <sub>d</sub> coefficient		0.226
Technical data		
Visual free area		59%
Physical free area		50%
IP class [louvre with mesh; electrical installation at least 100 mm from louvre]		IP2XD



Ventilated cooling

## TECHNICAL DRAWINGS



# 431R

## Round louvre without frame

SURFACE-  
MOUNTED  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 insect screen [2.3 x 2.3 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 33,3 mm
- Depth to fit: 40 mm
- Minimum diameter: 300 mm
- Maximum diameter:
  - 1400 mm if anodised in satin colour
  - 1500 mm if powder-coated in RAL or Syntha Pulvin colour
  - Over 1500 mm: in two parts

### FIXING

- Screws included

### OPTIONS

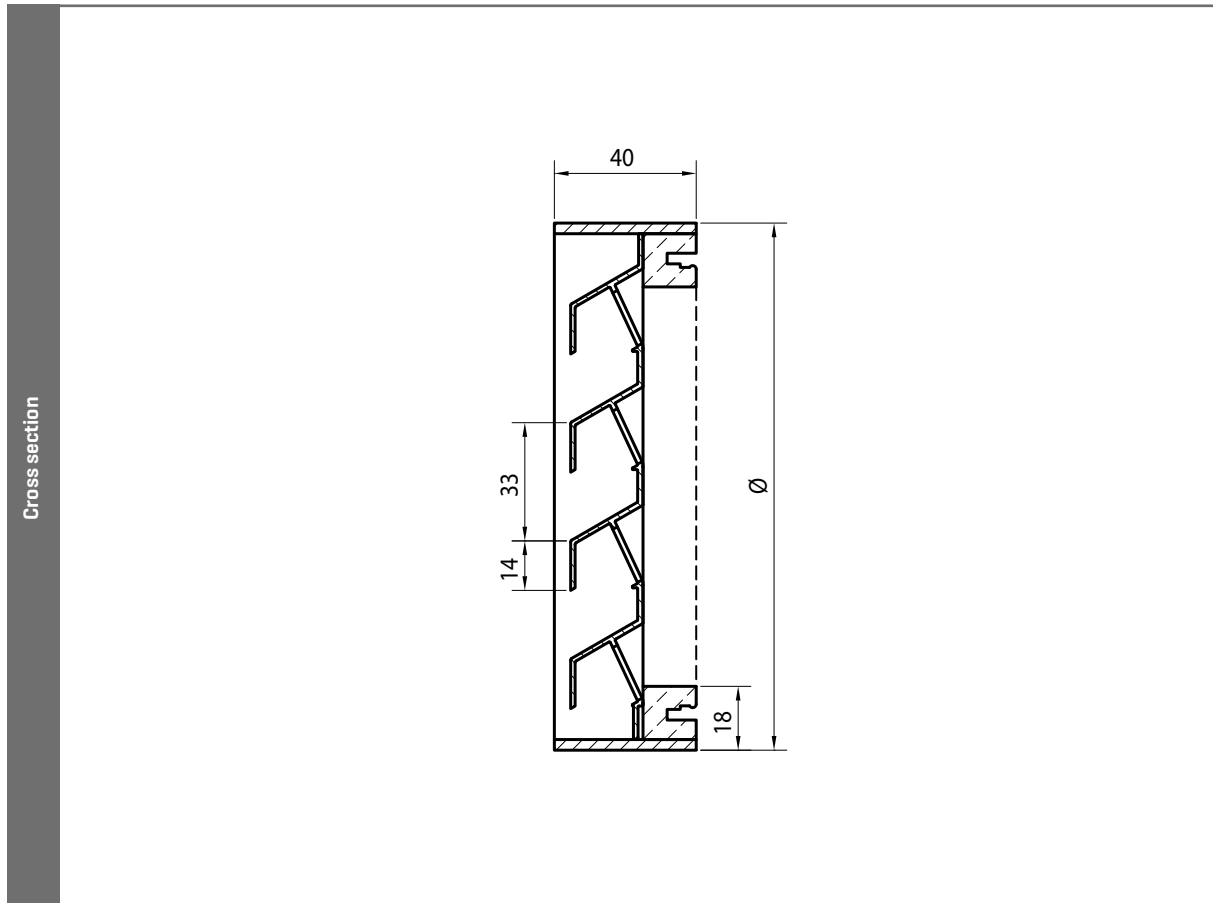
- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		23.56
K-factor [discharge]		25.51
C <sub>e</sub> coefficient		0.206
C <sub>d</sub> coefficient		0.198
Technical data		
Visual free area		59%
Physical free area		40.5%
IP class [louvre with mesh; electrical installation at least 100 mm from louvre]		IP2XD

## TECHNICAL DRAWINGS



# 432

## Surface-mounted, removable louvre with frame

SURFACE-MOUNTED LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 insect screen [2.3 x 2.3 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]
- Consists of a screwfixed frame and a removable louvre

### DIMENSIONS

- Blade pitch: 33 mm
- Thickness: 40 mm
- Minimum dimensions: 150 x 150 mm
- Maximum surface: 2.25 m<sup>2</sup>

### FIXING

- Screws and plugs are included

### OPTIONS

- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

### TYPICAL APPLICATIONS

- Nightcooling
- Removable louvre: to enhance interior light levels and facilitate maintenance



## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		20.47
K-factor [discharge]		19.58
C <sub>e</sub> coefficient		0.221
C <sub>d</sub> coefficient		0.226
Technical data		
Visual free area		59%
Physical free area		50%



## TECHNICAL DRAWINGS

Cross-sections

The screwfixed frame is surface mounted. The removable louvre is installed from the outside and secured from the inside out by means of deadbolts. By unlocking these deadbolts the louvre can easily be removed.

# 433/S - 433/L

## Surface-mounted louvres Pressure-relief damper

SURFACE-  
MOUNTED  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]
- Extractor hood louvres: the blades open at the same time
- Pressure-relief louvres: the blades open individually
- Standard: without insect screen
- Opening pressure: 10 Pa standard, 20 Pa with enhanced blade

### DIMENSIONS PRESSURE-RELIEF DAMPER 433/L

- Height: [multiple of 100] + 328 mm
- Minimum dimensions: 300 x 328 mm
- Thickness: 29 mm
- In length, the blades are in one piece up to 800 mm

### DIMENSIONS EXTRACTOR HOOD LOUVRE 433/S

- See stock models

### FIXING

- Invisible fixing
- Screws and plugs are included

### OPTIONS

- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

### TYPICAL APPLICATIONS

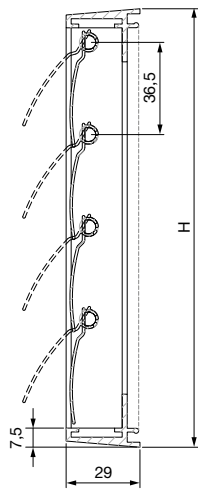
- Extractor hood
- Drying cabinet

### STOCK MODELS

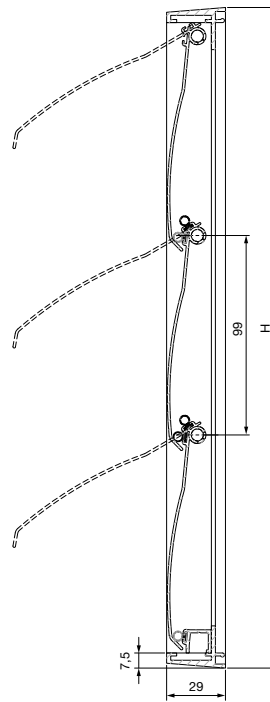
Dimensions (W x H) mm	Natural colour anodised	Renson Standard WHITE	RAL 8019	STR 7016	STR 9005
<b>Extractor hood louvres 433/S</b>					
173 x 173	04331731	04331736		04331733	04331739
210 x 210	04332101	04332106		04332103	04332109
246 x 246	04332461	04332466	04332467		
<b>Pressure-relief dampers 433/L</b>					
328 x 328	00433328				
428 x 428	00433428				
528 x 528	00433528				

### TECHNICAL DRAWINGS

Renson® Technology extractor hood louvre 433/S



Pressure-relief damper 433/L



# 414

## Glazed-in louvre

GLAZED-IN  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 insect screen [2.3 x 2.3 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 33,3 mm
- Frame thickness: 24, 28 or 32 mm
- Minimum dimensions: 130 x 130 mm
- Specify on ordering: width x height in mm [overall dimensions]

### FIXING

- Suitable for 24, 28, 32 mm glazing sections. Other thicknesses on request.

### OPTIONS

- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without
- Drainage profile
- Insect screen or mesh in stainless steel 316
- Water channel
- Removable mesh
- Filter
- Pressure-relief louvre

### TYPICAL APPLICATIONS

- Nightcooling





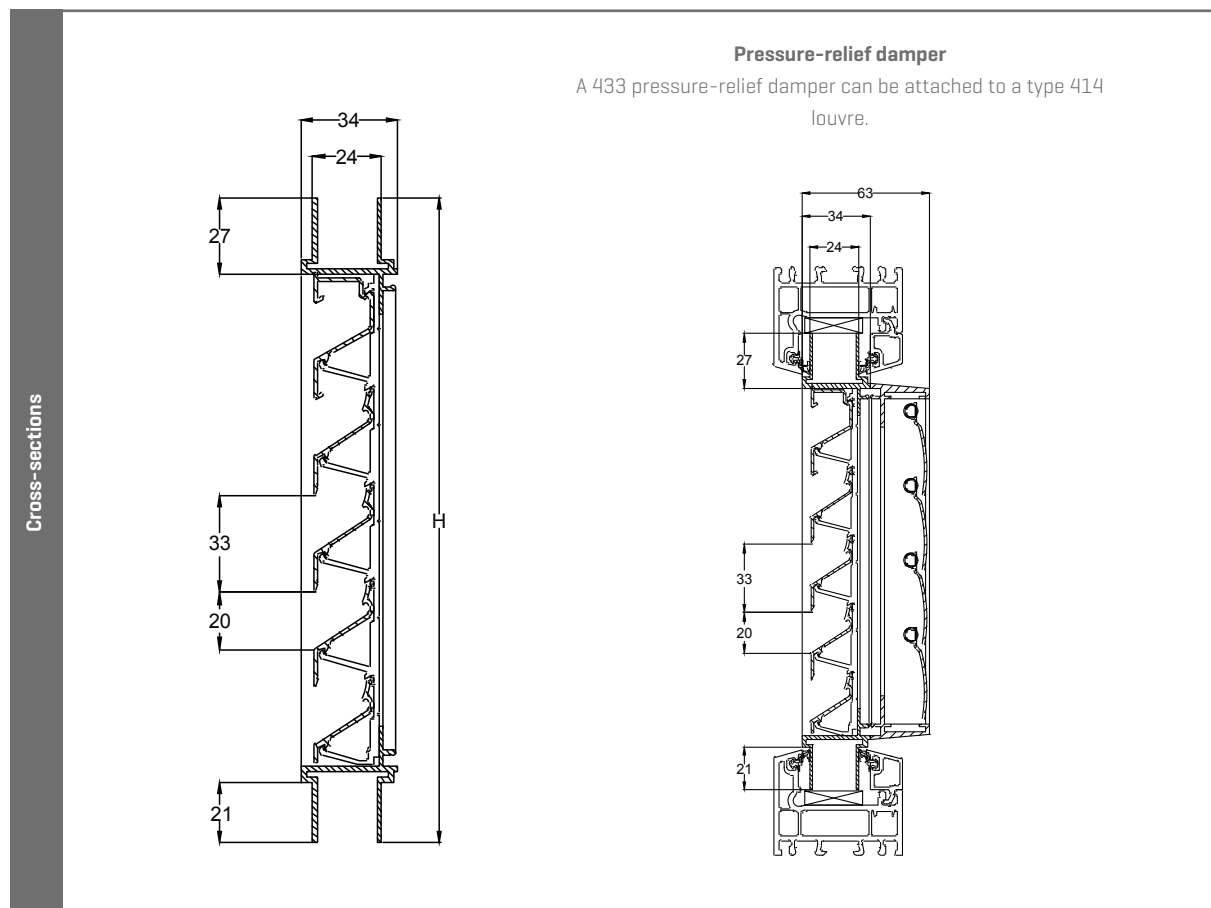
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

<b>Weatherability</b>		[EN 13030]
Class [details see p. 12]		A3 [0.5 m/s]
<b>Airflow</b>		[EN 13030]
K-factor [entry]		20.47
K-factor [discharge]		19.58
C <sub>e</sub> coefficient		0.221
C <sub>d</sub> coefficient		0.226
<b>Technical data</b>		
Visual free area		59%
Physical free area		50%
IP class [louvre with mesh; electrical installation at least 100 mm from louvre]		IP2XD



## TECHNICAL DRAWINGS

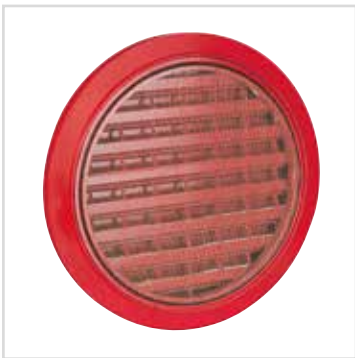


# 414R

## Round glazed-in louvre

GLAZED-IN  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 insect screen [2.3 x 2.3 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 33,3 mm
- Frame thickness: 24 mm
- Minimum diameter: 340 mm
- Maximum diameter:
  - 1400 mm if anodised in satin colour
  - 1500 mm if powder-coated in RAL or Syntha Pulvin colour
  - Over 1500 mm: in two parts

### FIXING

- Suitable for 24, 28, 32 mm glazing sections. Other thicknesses on request.

### OPTIONS

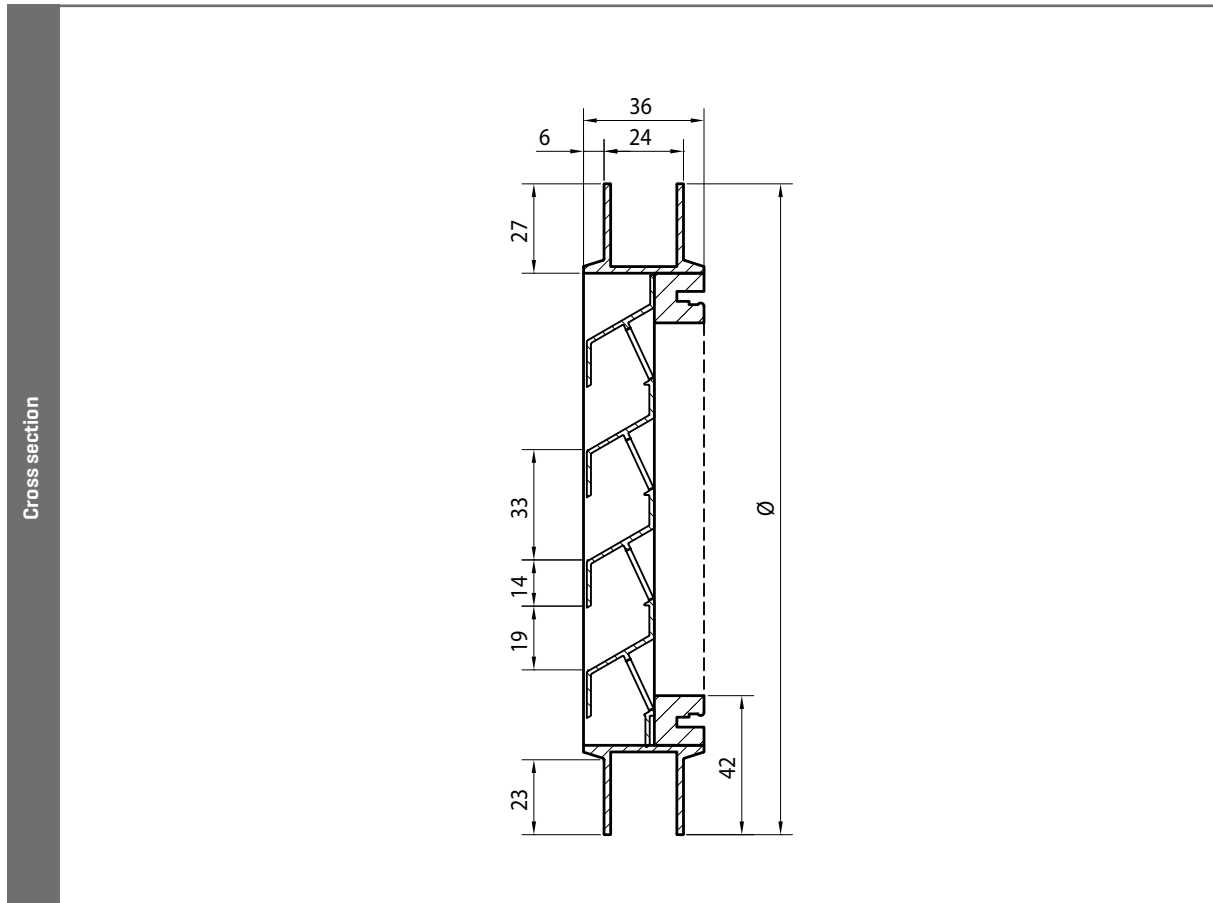
- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		23.56
K-factor [discharge]		25.51
C <sub>e</sub> coefficient		0.206
C <sub>d</sub> coefficient		0.198
Technical data		
Visual free area		59%
Physical free area		40.5%
IP class [louvre with mesh; electrical installation at least 100 mm from louvre]		IP2XD

## TECHNICAL DRAWINGS



# 414VA

## Controllable louvre

GLAZED-IN  
LOUVRE

ALUMINIUM



414VA



414/D

### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 mesh [2.3 x 2.3 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 33,3 mm
- Frame thickness: 24, 28 or 32 mm
- Minimum dimensions: 200 x 130 mm
- Specify on ordering: width x height in mm [overall dimensions]
- Controllable in combination with 100, 130 and 150 mm hit-and-miss ventilators or with insulated aluminium door [414/D] [max size 400 x 400 mm]

### FIXING

- Suitable for 24, 28, 32 mm glazing sections. Other thicknesses on request.

### OPTIONS

- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

### CONTROL OPTIONS (1 CONTROL PANEL PER MODULE)

- Knob control [standard]
- Rod
- Cord
- Motor

## TECHNICAL SPECIFICATIONS

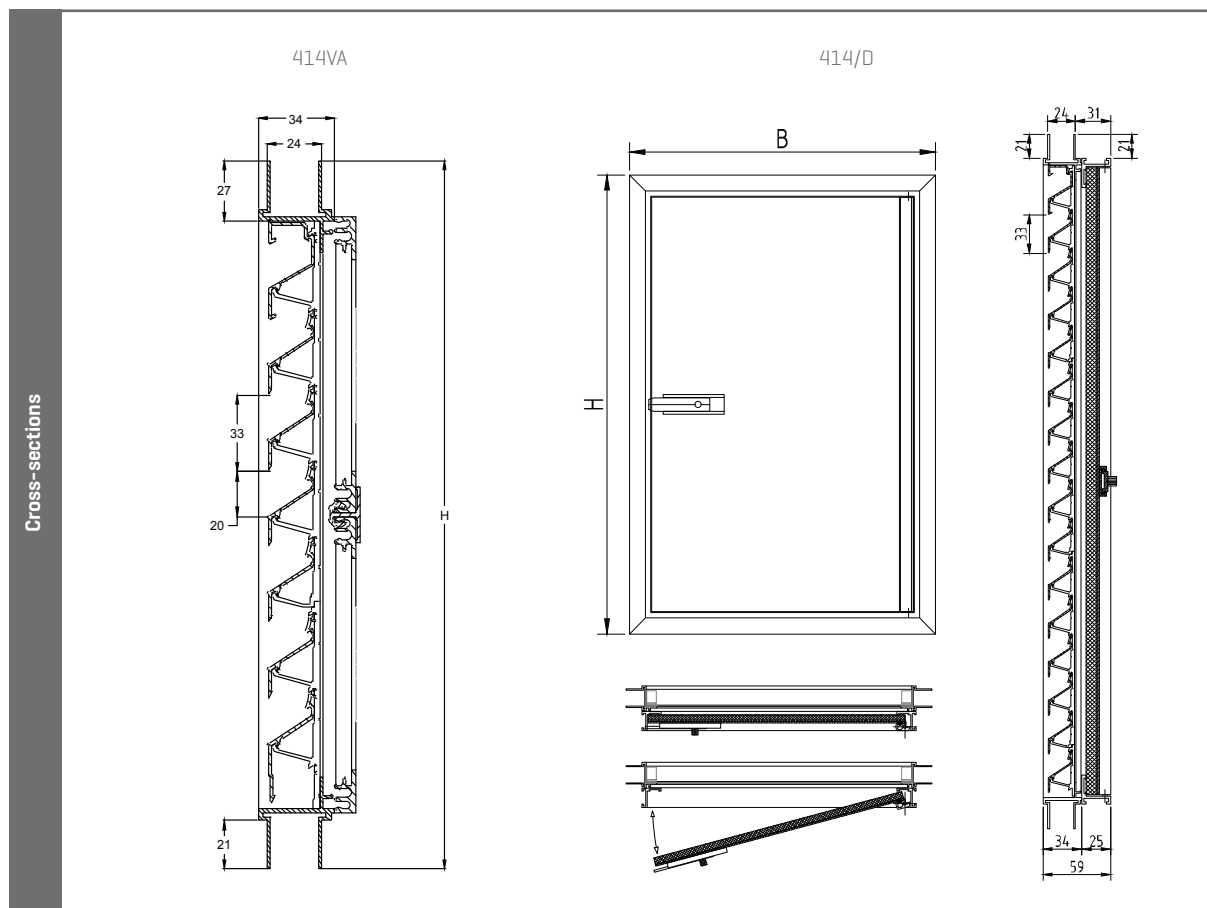
All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		28.13
C <sub>e</sub> coefficient		0.189

*[For combinations with closable louvres 130 and 150 mm]*



## TECHNICAL DRAWINGS

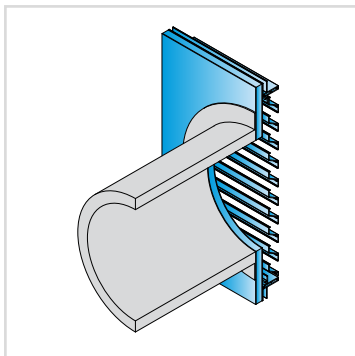
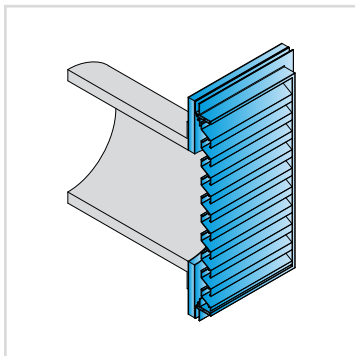


# 414THF

## Thermally insulated window louvre

GLAZED-IN  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]
- Thermal insulation panel with PUR foam composite
- Sandwich panel can also be powdercoated on both sides

### DIMENSIONS

- Blade pitch: 33,3 mm
- Minimum size: 130 x 130 mm
- Frame thickness: 24, 28, or 32 mm
- Specify on ordering: width x height in mm [overall dimensions]

### FIXING

- Suitable for 24, 28, 32 mm glazing sections. Other thicknesses on request.

### TYPICAL APPLICATIONS

- Curtain walls
- Thermally insulated air duct

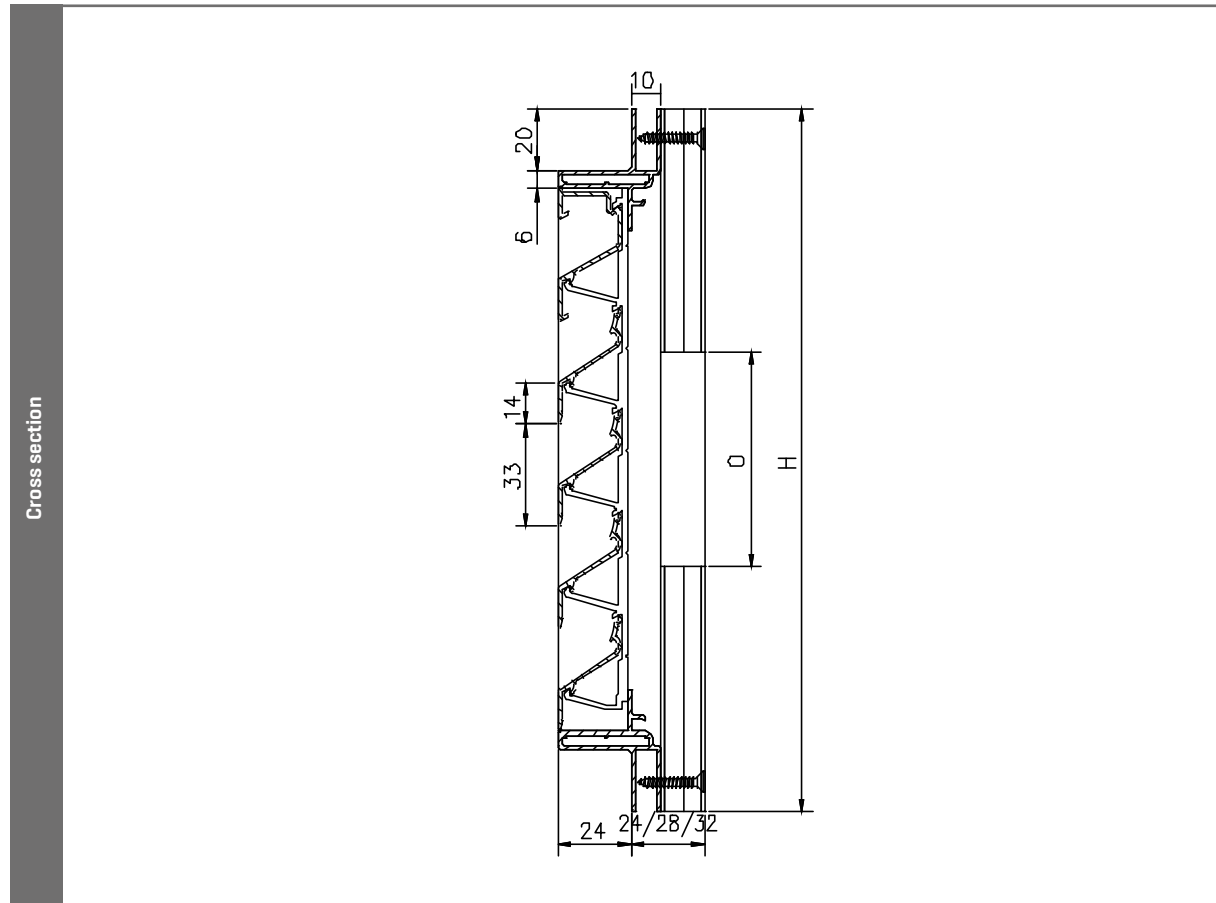
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

[for cut-out part of thermal insulation]

Airflow		[EN 13030]
K-factor [entry]		20.47
K-factor [discharge]		19.58
C <sub>e</sub> coefficient		0.221
C <sub>d</sub> coefficient		0.226
Technical data		
Visual free area		59 %
Physical free area		50 %
U-value 1,1 W/m <sup>2</sup> K		1,1 W/m <sup>2</sup> K
IP class		IP2XD

## TECHNICAL DRAWINGS



# 415

## Glazed-in louvre with chevron section blades

GLAZED-IN  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 mesh [6 x 6 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 20 mm
- Frame thickness: 24, 28 or 32 mm
- Minimum dimensions: 130 x 130 mm
- Specify on ordering: width x height in mm [Overall dimensions]

### FIXING

- Suitable for 24, 28, 32 mm glazing sections. Other thicknesses on request.

### OPTIONS

- Stainless steel 304 insect screen 2,3x2,3 or mesh [10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316
- Water channel
- Drainage profile
- Removable mesh
- Filter

### TYPICAL APPLICATIONS

- Window Louvre with no look-through and stick-proof





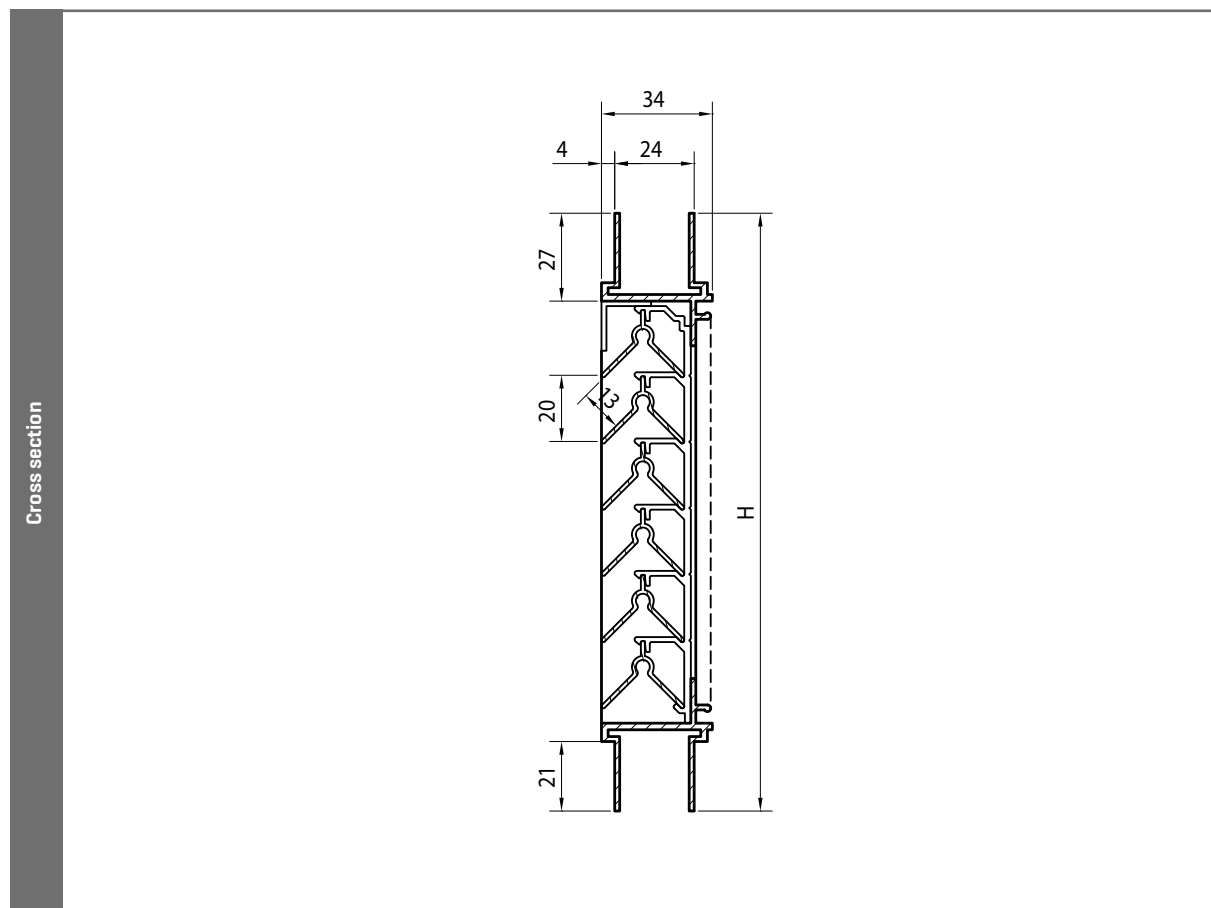
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

<b>Weatherability</b>		[EN 13030]
Class for execution with mesh 2.3x2.3 mm and water channel (details see p. 12)		A4 [1 m/s]
<b>Airflow</b>		[EN 13030]
K-factor [entry]		34.60
K-factor [discharge]		34.60
C <sub>e</sub> coefficient		0.170
C <sub>d</sub> coefficient		0.170
<b>Technical data</b>		
Visual free area		93%
Physical free area		39%
IP class		IP2XD
IP class for version with mesh 2.3x2.3 mm and water channel (electrical installation at least 350 mm)		IP44



## TECHNICAL DRAWINGS

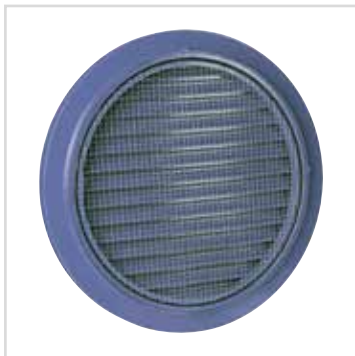
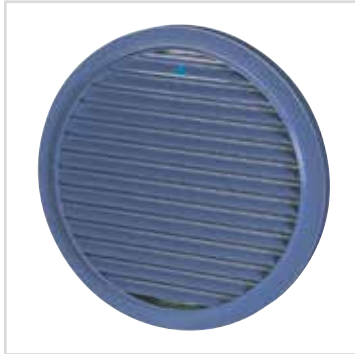


# 415R

## Round louvre with chevron section blades

GLAZED-IN  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 (according to EN 12020-2)
- Stainless steel 304 mesh [6 x 6 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]
- Frame assembled by a single weld

### DIMENSIONS

- Blade pitch: 20 mm
- Frame thickness: 24 mm
- Minimum diameter: 340 mm
- Maximum diameter:
  - 1400 mm if anodised in satin colour
  - 1500 mm if powder-coated in RAL or Syntha Pulvin colour
  - Over 1500 mm: in two parts

### FIXING

- To be fitted like double glazing

### OPTIONS

- Stainless steel 304 mesh [2,3x2,3/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

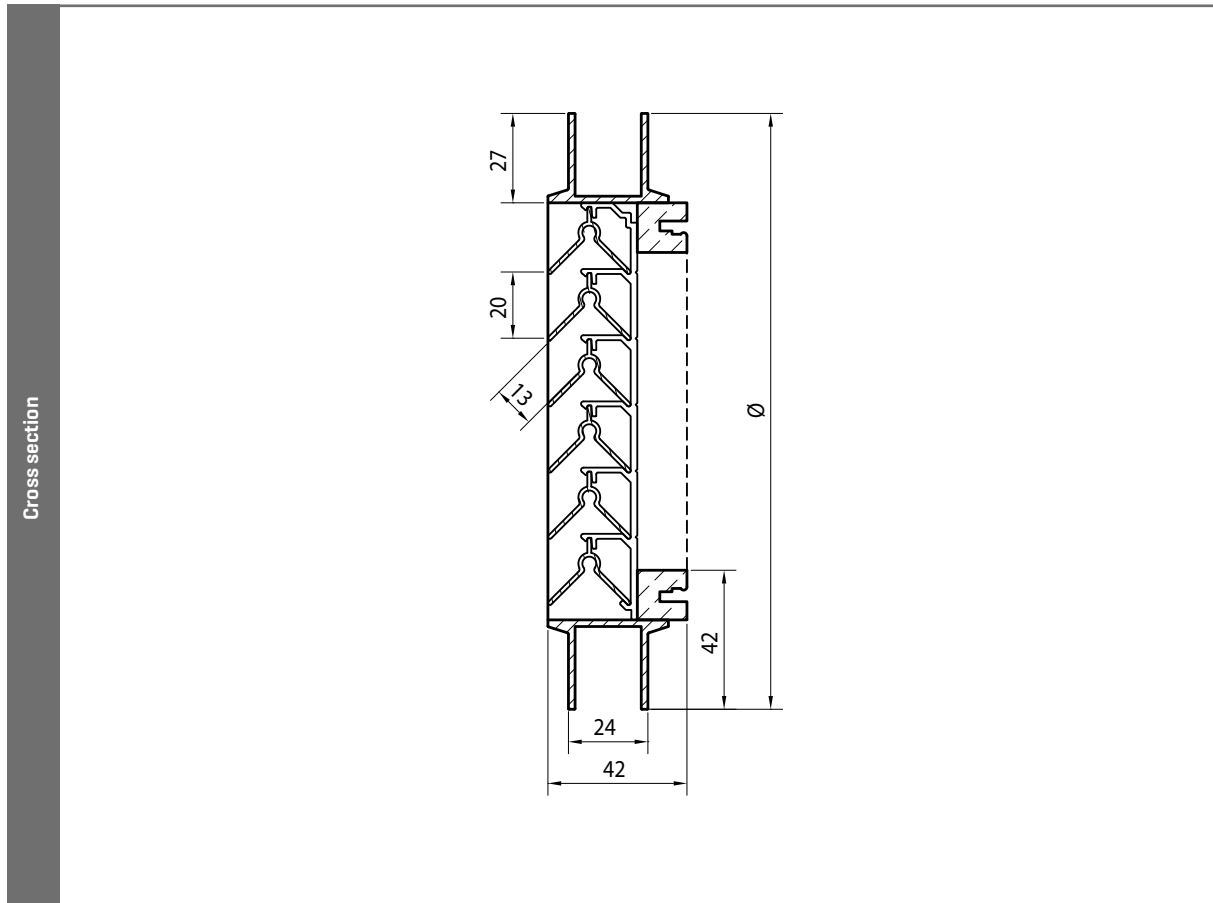


## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		34.60
K-factor [discharge]		34.60
C <sub>e</sub> coefficient		0.170
C <sub>d</sub> coefficient		0.170
Technical data		
Visual free area		93%
Physical free area		39%
IP class		IP2XD

## TECHNICAL DRAWINGS



# 415VA

## Controllable louvre with chevron section blades

GLAZED-IN  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 mesh [6 x 6 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 20 mm
- Frame thickness: 24, 28 or 32 mm
- Specify on ordering: width x height in mm [overall dimensions]
- Controllable in combination with 100, 130 and 150 mm hit-and-miss ventilators or with insulated aluminium door [415/D]
- Minimum dimensions: 200 x 130 mm

### FIXING

- Suitable for 24, 28, 32 mm glazing sections. Other thicknesses on request.

### OPTIONS

- Stainless steel 304 mesh [2,3x2,3/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

### CONTROLOPTIONS [1 CONTROLPANEL PER MODULE]

- Standard: knob control
- Rod
- Cord
- Motor

### TYPICAL APPLICATIONS

- Classrooms



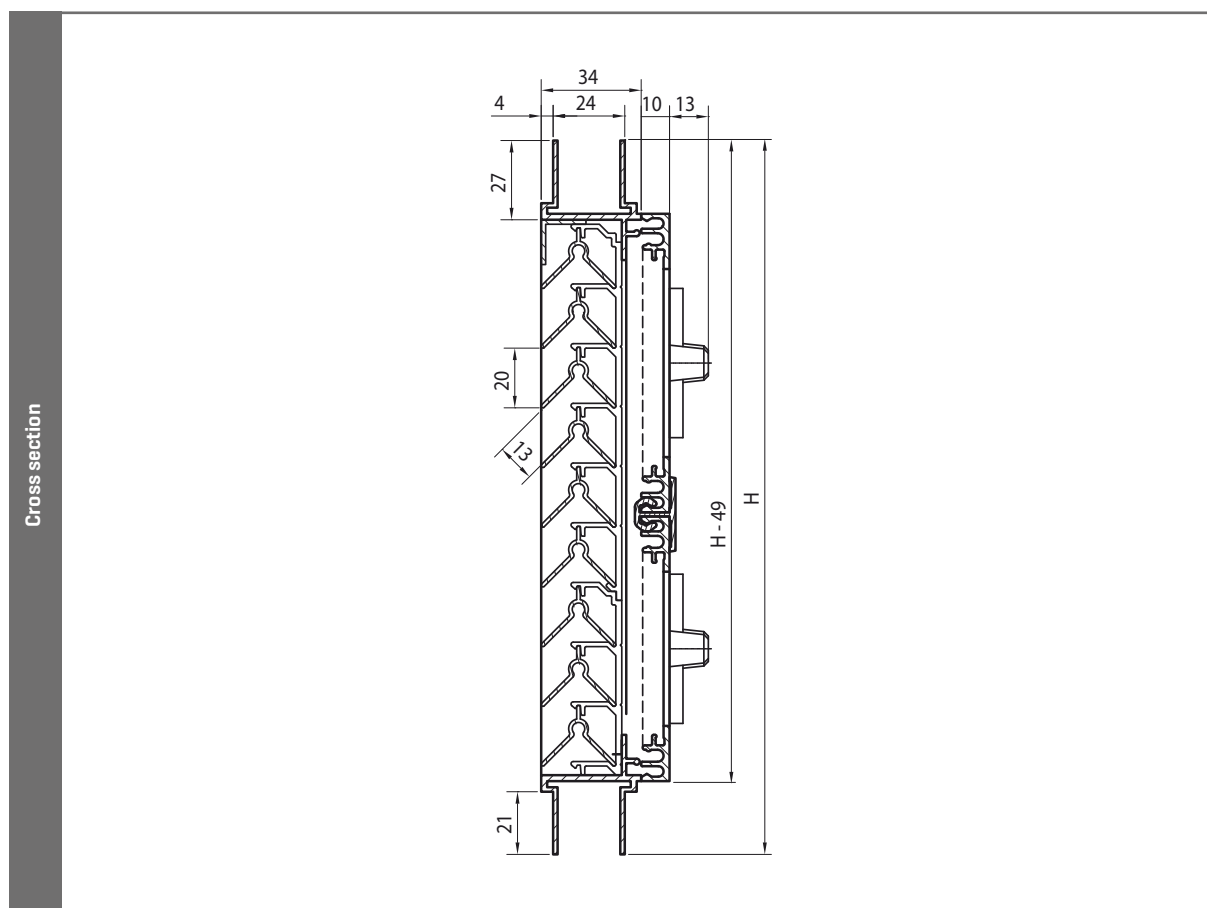
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		(EN 13030)
K-factor [entry]		34.24
C <sub>e</sub> coefficient		0.171
<i>[For combinations with closable louvres 130 and 150 mm]</i>		
Technical data		
IP class		IP2XD



## TECHNICAL DRAWINGS



# 424

## Glazed-in louvre, heavy-duty series

GLAZED-IN  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 insect screen [2.3 x 2.3 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 50 mm
- Frame thickness: 24 or 28 mm
- Specify on ordering: full width x height in mm
- Minimum dimensions: 220 x 220 mm

### FIXING

- Suitable for 24 and 28 mm glazing sections. Other thicknesses on request.

### OPTIONS

- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316
- Water channel
- Drainage profile
- Removable mesh
- Filter

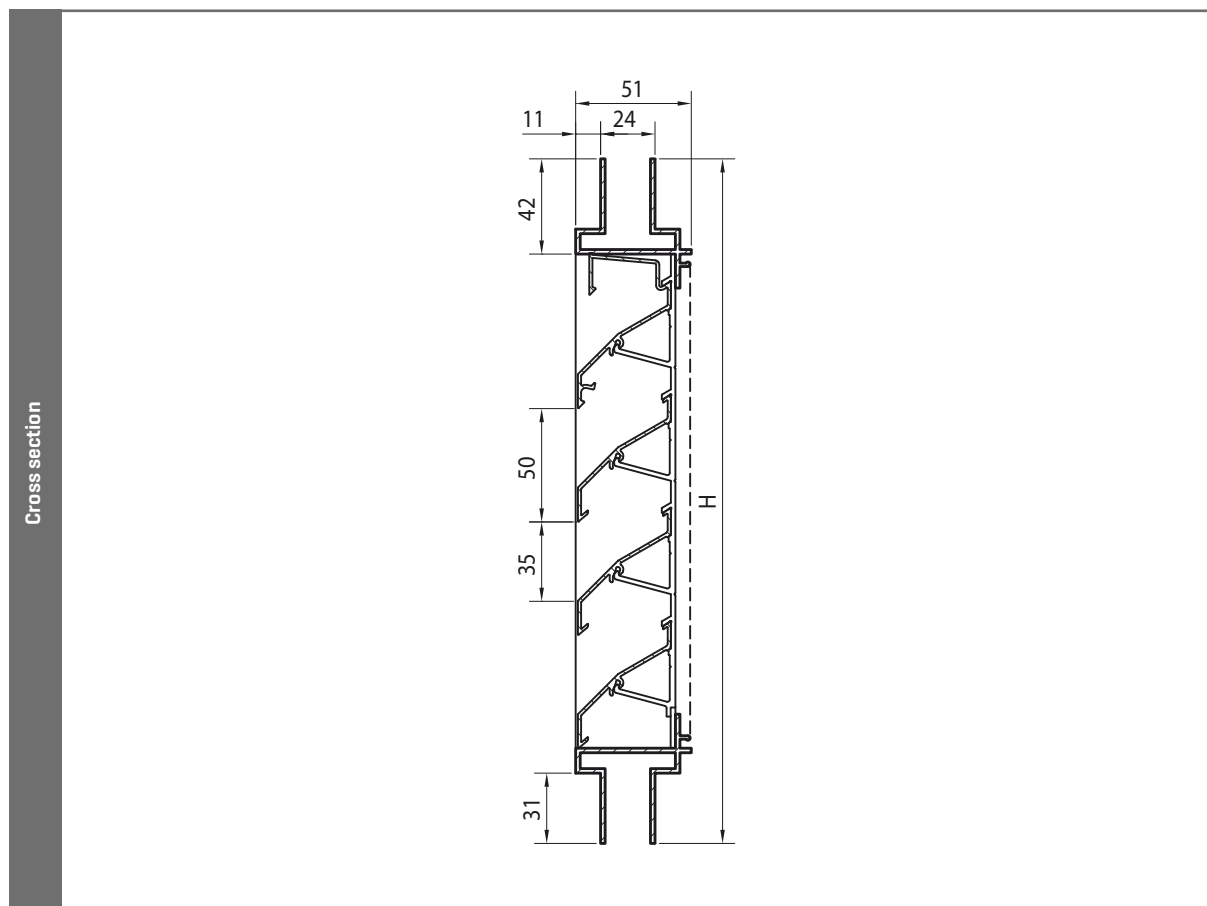
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		13.42
K-factor [discharge]		11.73
C <sub>e</sub> coefficient		0.273
C <sub>d</sub> coefficient		0.292
Technical data		
Visual free area		70%
Physical free area		49%
IP class [louvre with mesh; electrical installation at 105 mm at least]		IP2XD



## TECHNICAL DRAWINGS



# 428

## Glazed-in louvre with chevron section blades, heavy-duty series

GLAZED-IN  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Standard stainless steel 304 insect screen [2.3 x 2.3 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 33,3 mm
- Frame thickness: 24 or 28 mm
- Specify on ordering: full width x height in mm
- Minimum dimensions: 220 x 220 mm

### FIXING

- Suitable for 24 and 28 mm glazing sections. Other thicknesses on request.

### OPTIONS

- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316
- Water channel
- Drainage profile
- Removable mesh
- Filter
- Controllable louvre 428/VA



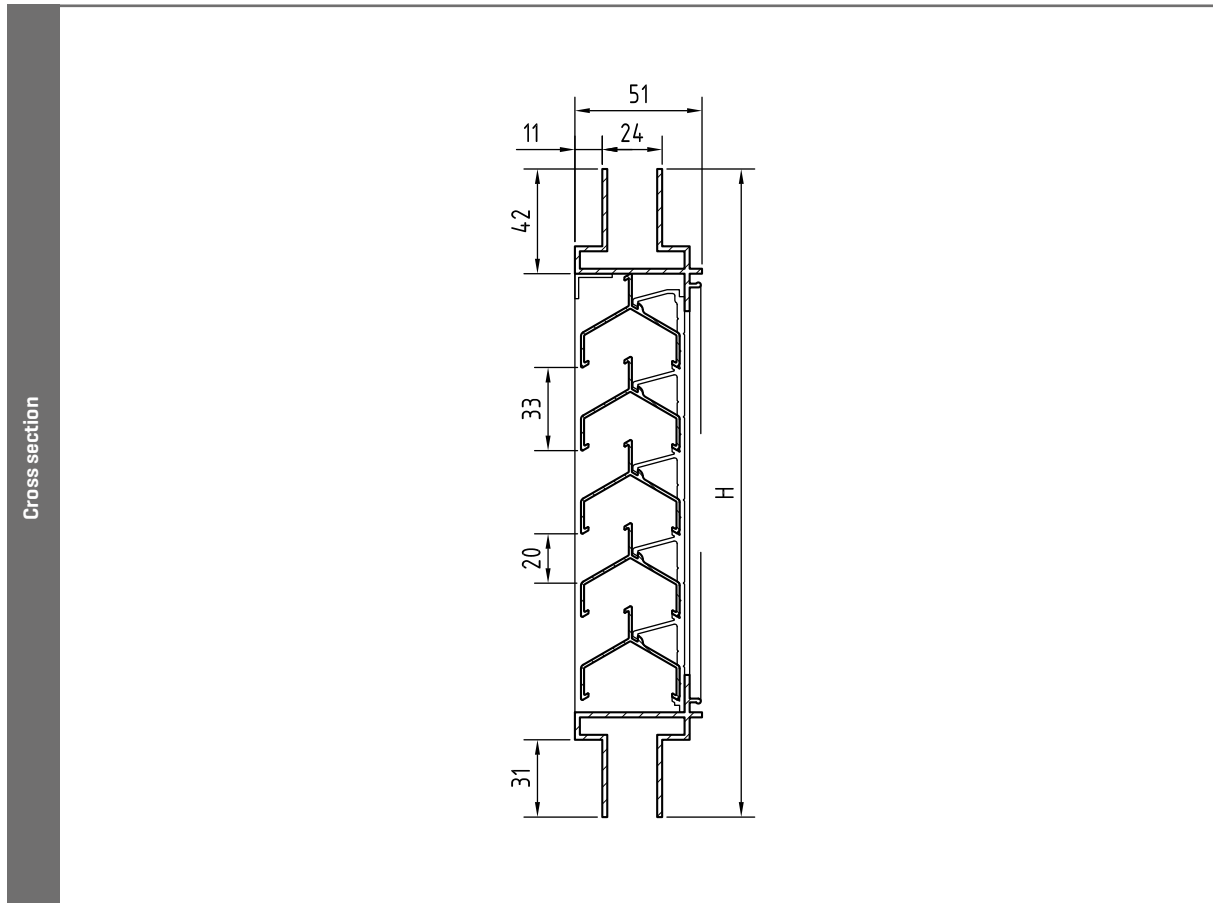


## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

<b>Weatherability</b>		[EN 13030]
Class for execution with mesh 6x6 mm and water channel <i>[details see p. 12]</i>		A4 [0.5 m/s]
<b>Airflow</b>		[EN 13030]
K-factor [entry]		66.10
K-factor [discharge]		66.10
C <sub>e</sub> coefficient		0.123
C <sub>d</sub> coefficient		0.123
<b>Technical data</b>		
Visual free area		59%
Physical free area		43%
IP class for execution with standard mesh 2.3x2.3 mm and water channel electrical installation at least 200mm]		IP44

## TECHNICAL DRAWINGS



# 483

## High-airflow glazed-in louvre

GLAZED-IN  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Standard stainless steel 304 mesh [6 x 6 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 60 mm
- Frame thickness: 24 mm [frame thickness of 8 to 80 mm on request]
- Specify on ordering: full width x height in mm
- Minimum dimensions: 385 x 385 mm

### FIXING

- Suitable for 24 and 28 mm glazing sections. Other thicknesses on request.

### OPTIONS

- Stainless steel 304 insect screen 2,3x2,3 or mesh [10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316
- Water channel
- Drainage profile
- Removable mesh
- Filter

### TYPICAL APPLICATIONS

- Applications with request for high air-flow

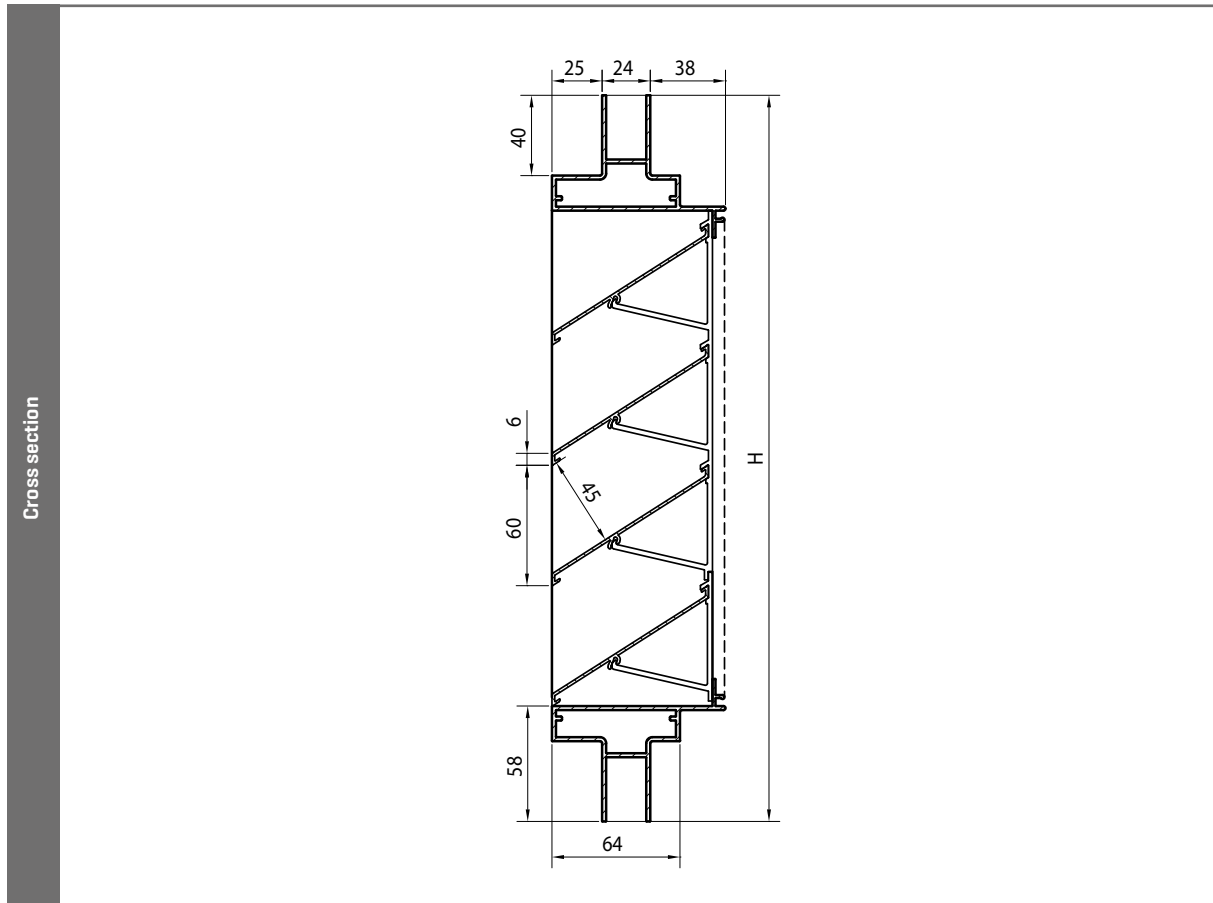


## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		4,60
K-factor [discharge]		5,17
C <sub>e</sub> coefficient		0,466
C <sub>d</sub> coefficient		0,440
Technical data		
Visual free area		90%
Physical free area		76%

## TECHNICAL DRAWINGS



# 484

## Glazed-in louvre, heavy-duty series

GLAZED-IN  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 insect screen [2.3 x 2.3 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 50 mm
- Frame thickness: 24 or 28 mm
- Specify on ordering: full width x height in mm
- Minimum dimensions: 220 x 220 mm

### FIXING

- Suitable for 24 and 28 mm glazing sections. Other thicknesses on request.

### OPTIONS

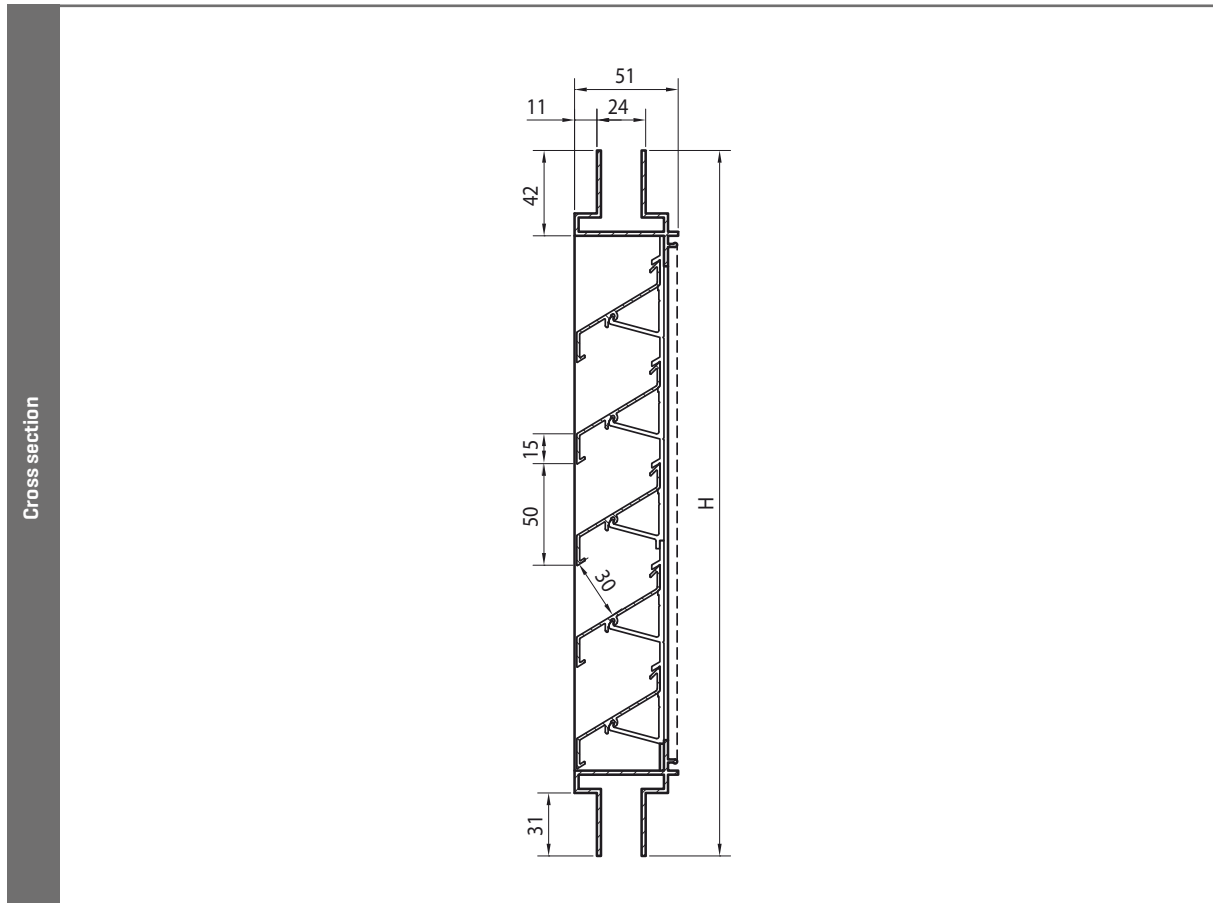
- Stainless steel 304 insect screen 2,3x2,3 or mesh [10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316
- Drainage profile
- Water channel
- Removable mesh
- Filter
- Controllable type 484/VA – same build as type 414/VA

## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		9.59
K-factor [discharge]		10.01
C <sub>e</sub> coefficient		0.323
C <sub>d</sub> coefficient		0.316
Technical data		
Visual free area		70%
Physical free area		60%
IP class [louvre with mesh; electrical installation at least 100 mm from louvre]		IP2XD

## TECHNICAL DRAWINGS



# 494

## Glazed-in 'storm' louvre

GLAZED-IN  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 mesh [6 x 6 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 33,3 mm
- Frame thickness: 24, 28 or 32 mm
- Specify on ordering: full width x height in mm
- Minimum dimensions: 130 x 130 mm

### FIXING

- Suitable for 24, 28, 32 mm glazing sections. Other thicknesses on request.

### OPTIONS

- Stainless steel 304 insect screen 2,3x2,3 or mesh [10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316
- Water channel
- Drainage profile
- Removable mesh
- Filter
- Welded blades on frame [only RAL finish]

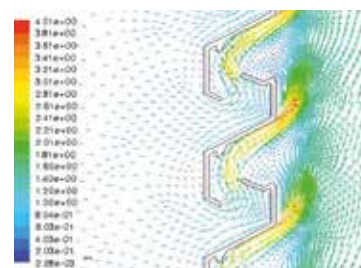


## TECHNICAL SPECIFICATIONS

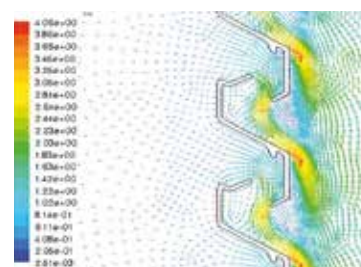
All properties are valid for the standard version of the Louvre, unless otherwise stated.

<b>Weatherability</b>		[EN 13030]
Class for version with mesh 6x6 mm and water channel [details see p. 12]		A4 [0.5 m/s]
<b>Airflow</b>		[EN 13030]
K-factor [entry]		123.5
K-factor [discharge]		118.1
C <sub>e</sub> coefficient		0.090
C <sub>d</sub> coefficient		0.092
<b>Technical data</b>		
Visual free area		57%
Physical free area		26%
IP class for version with mesh 2.3x2.3 mm and water channel [electrical installation on at least 150 mm]'		IP2XD

AIR FLOW

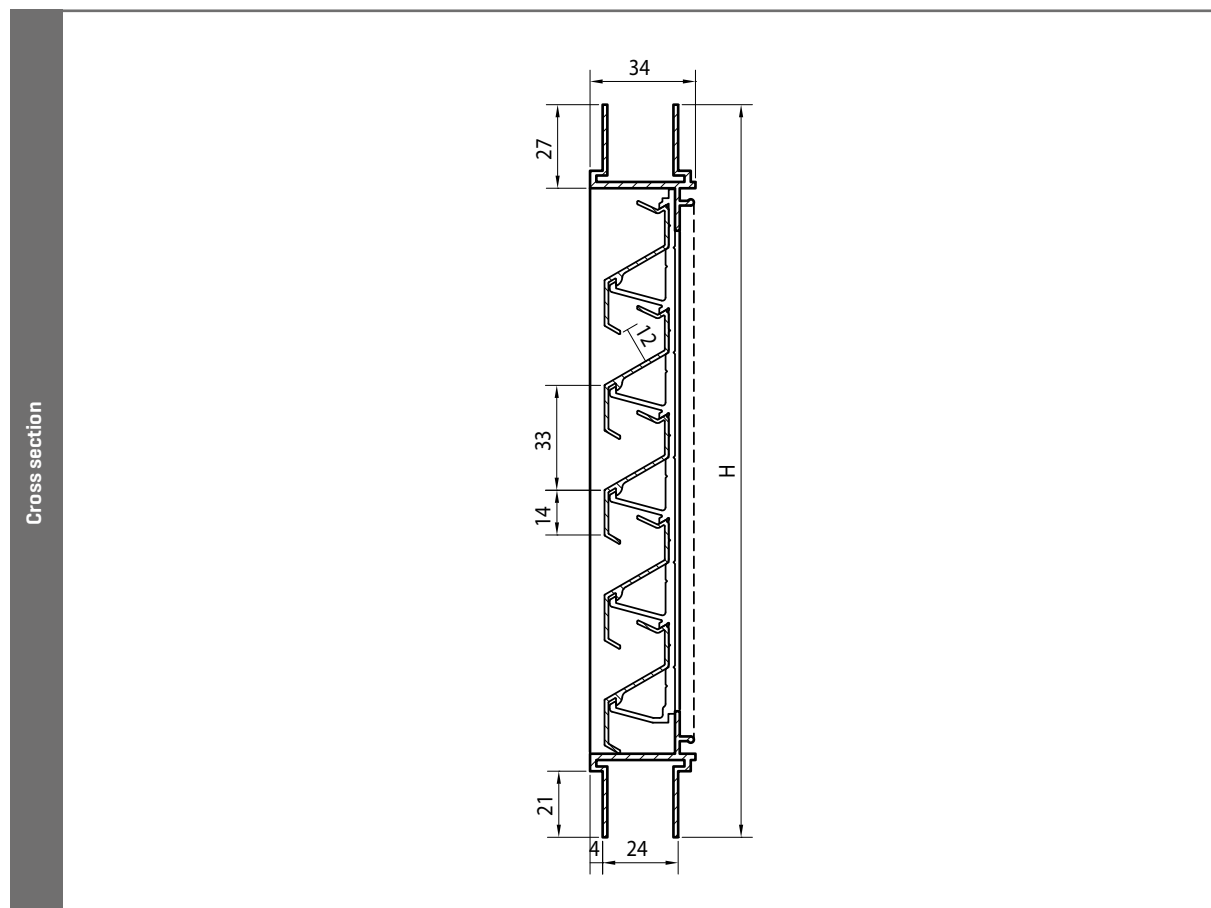


Supply



Extraction

## TECHNICAL DRAWINGS



# 427GL

## Glazed-in louvre with adjustable blades, extra-heavy-duty series

GLAZED-IN  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 mesh [6 x 6 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 100 mm
- Maximum width in one piece: 1300 mm
- Frame thickness: 24 mm [frame thickness of 8 to 50 mm on request]
- Specify on ordering: full width x height in mm
- Minimum dimensions: 377 x 377 mm
- Preferred height = [multiple of x 100] + 377 mm

*Remark: the minimum height is dependant of the control option.*

### FIXING

- Suitable for 24 and 28 mm glazing sections. Other thicknesses on request.

### OPTIONS

- Stainless steel 304 insect screen 2,3x2,3 or mesh [10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

### CONTROL OPTIONS

- 427/1 Manual: min. height 377 mm
- 427/2 Cable: min. height 477 mm
- 427/3 Ultraflex: min. height 777 mm
- 427/4 Motor: [220V - 24V] / spring-return actuator [24V]: min. height 477 mm
- 427/5 Air pressure: min. height 477 mm

*For more information on the different control modes, please refer to p. 38 and 39.*

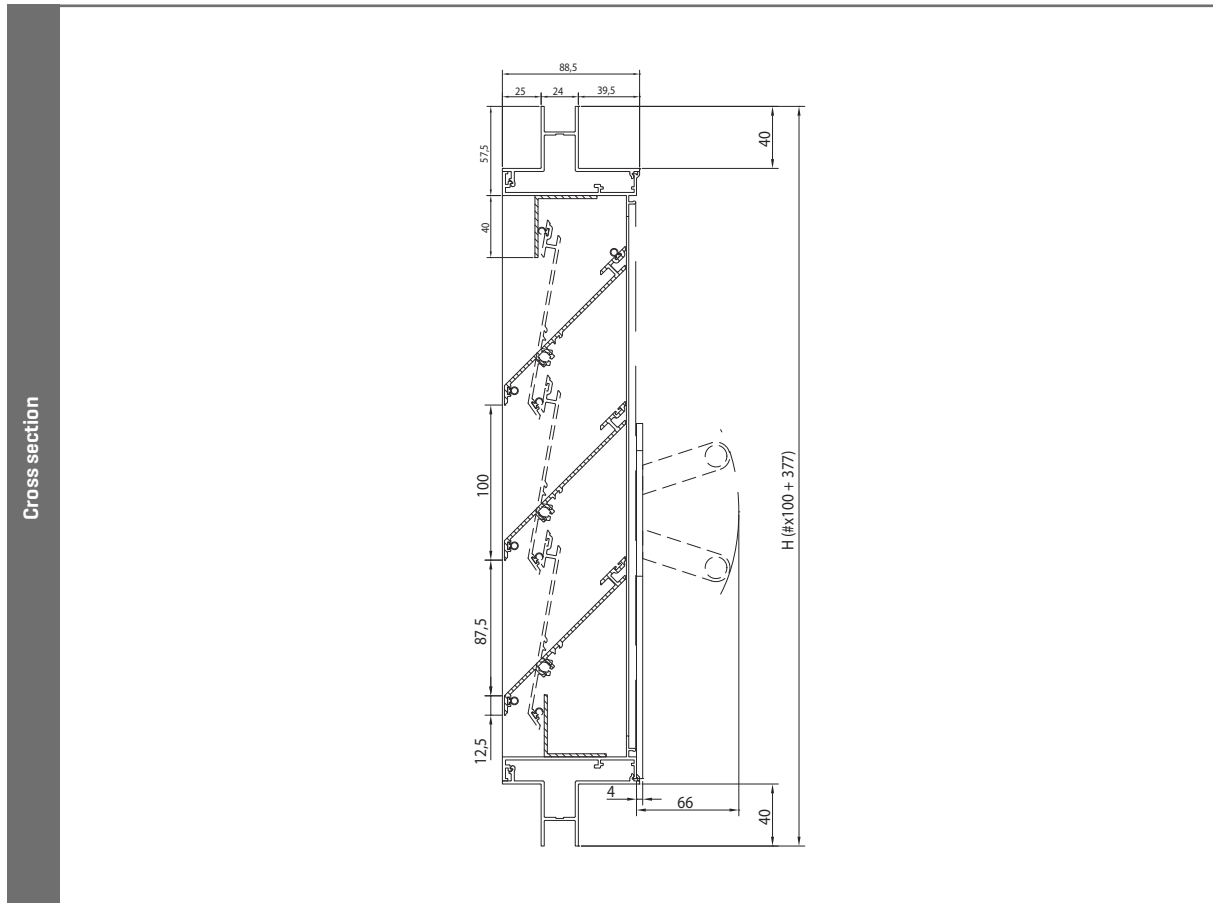


## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		11.41
K-factor [discharge]		11.65
C <sub>e</sub> coefficient		0.296
C <sub>d</sub> coefficient		0.293
Technical data		
Visual free area		88%
Physical free area		53%

## TECHNICAL DRAWINGS



# 445/86

## Acoustic wall louvre

SOUND-  
REDUCTION  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 mesh [6 x 6 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]
- 100% stainless

### DIMENSIONS

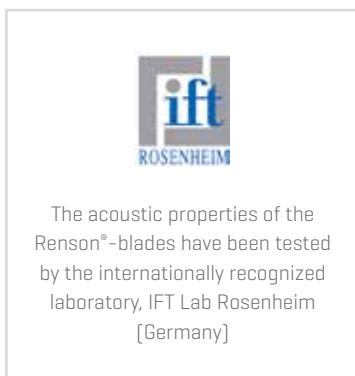
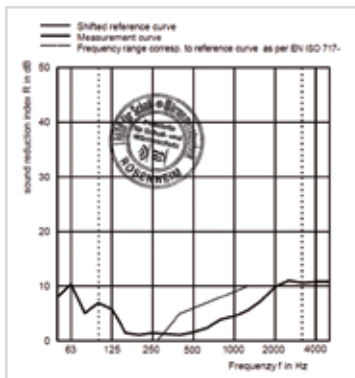
- Blade pitch: 60 mm
- Dimensions: depth to fit: 81.5 mm
- Flange size: 50 mm
- Height in steps of 60 mm [space between blades]
- Minimum dimensions: 230 x 230 mm

### FIXING

- Brackets ref. 429

### OPTIONS

- Stainless steel 304 insect screen 2,3x2,3 or mesh [10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316
- Filter
- Without flange
- Water channel
- Drainage profile
- Removable mesh



### SOUND REDUCTION IN DB PER FREQUENCY

f in Hz	R in dB
63	10.4
125	5.8
250	1.5
500	1.6
1000	4.5
2000	9.9
4000	10.8



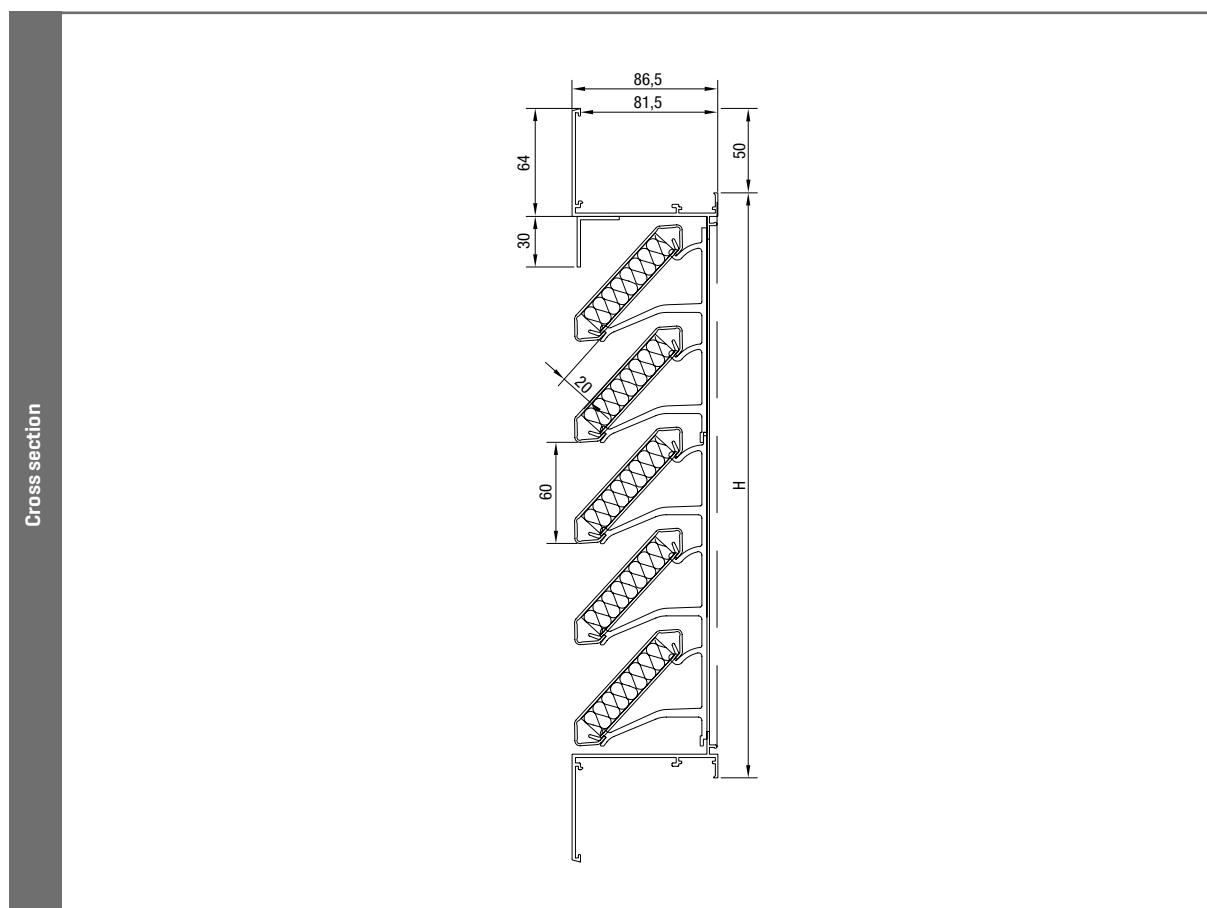
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		10,75
K-factor [discharge]		9,95
C <sub>e</sub> coefficient		0,305
C <sub>d</sub> coefficient		0,317
Comfort		[EN ISO 140-10, EN ISO 717-1]
Sound reduction R <sub>w</sub> [C;C <sub>r</sub> ]		6 [-1; -2] dB
Technical data		
Visual free area		77%
Physical free area		34%
Total depth		86 mm



## TECHNICAL DRAWINGS

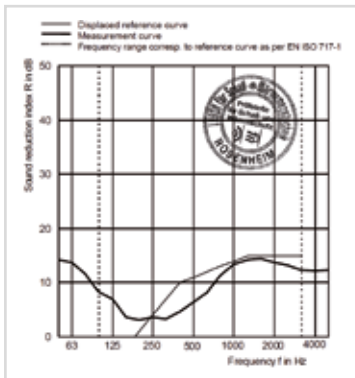


# 446/150

## Acoustic wall louvre

SOUND-  
REDUCTION  
LOUVRE

ALUMINIUM



The acoustic properties of the Renson®-blades have been tested by the internationally recognized laboratory, IFT Lab Rosenheim [Germany] Water resistance tested by BSRIA laboratories.

### MATERIAL

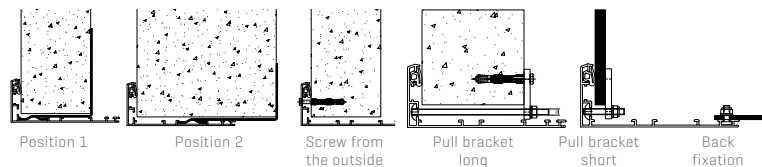
- Aluminum profiles AlMgSi 0,5 (according to EN 12020-2)
- Acoustic insulation material: non-flammable mineral wool
- Stainless steel mesh 304 6x6mm
- Finishing: anodized in satin colour (20 micron) or powder-coated in any RAL or Syntha Pulvin colour (40 micron)
- 100% stainless

### DIMENSIONS

- Blade pitch: 150 mm
- Depth to fit: 143 mm
- Flange size: 55 mm
- Height in steps of 150 mm (space between blades)
- Minimum dimensions: 300 W x 410 H

### FIXING

- Fixing bracket: installation with bracket no. 1428 possible
  - position 1: up to 100 mm wall thickness
  - position 2: for wall thickness up to 200 mm
- Screws: Fix the screws from the outside through the flange (screw holes upon request)
- Pull bracket: fixation with a long pull bracket and expander bolts for wall mounting or a short pull bracket for connection to a ventilation channel (pull bracket rod optional)
- Fixation on the backside: by screwing a hammerhead bolt to a structural backframe
- For louvres 446/300 larger than 3m<sup>2</sup>, a backframe structure is required



### SEALING POSSIBILITIES

- Sealing gasket: suitable for reduction of contact sounds (option sealing gasket)
- PU sealing tape: against water infiltration (option PU sealing tape)
- Silicone seal: seal the flange on the outside with silicone (option silicone)

### OPTIONS

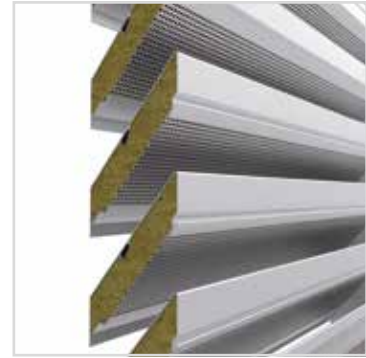
- Water channel
- Drainage profile
- Stainless steel 304 insect screen 2,3x2,3 or mesh (10x10/20x20 mm) or without
- Insect screen or mesh in stainless steel 316
- Filter
- Without flange



## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

<b>Weatherability</b>		[EN 13030]
Class [details see p. 12]		A4 [0 m/s]
<b>Airflow</b>		[EN 13030]
K-factor [entry]		38.46
K-factor [discharge]		34.48
C <sub>e</sub> coefficient		0.161
C <sub>d</sub> coefficient		0.169
<b>Comfort</b>		[EN ISO 140-10, EN ISO 717-1]
Sound reduction R <sub>w</sub> [C;C <sub>r</sub> ]		11 [-1;-2] dB
<b>Technical data</b>		
Visual free area		54%
Physical free area		34%
Waterproof		A [0 m/s]
Total depth		150 mm

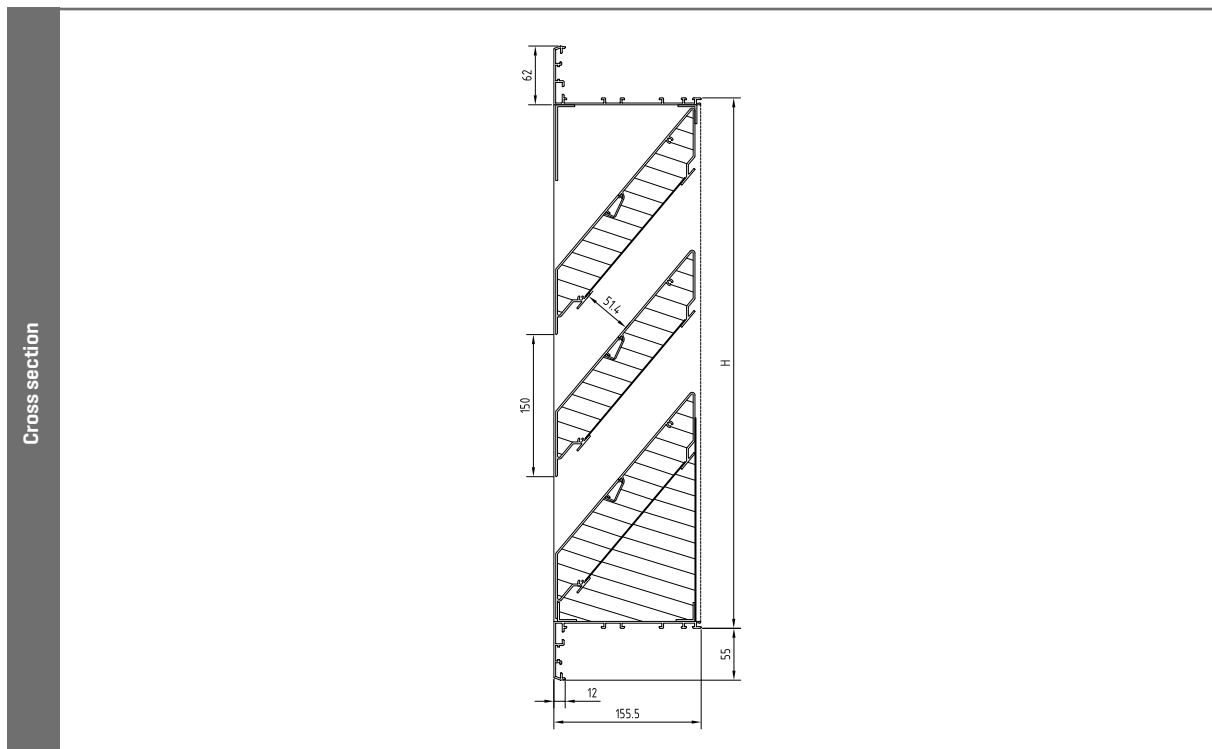


Section detail

## SOUND REDUCTION IN DB PER FREQUENCY

f in Hz	R in dB
63	13.8
125	6.9
250	3.6
500	6.4
1000	13.4
2000	13.8
4000	12.1

## TECHNICAL DRAWINGS

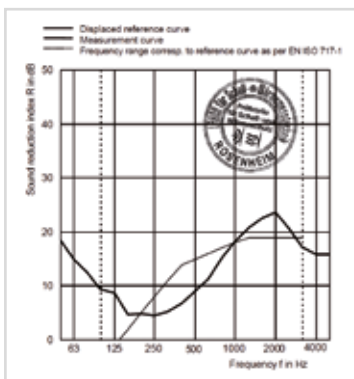


# 446/225

## Acoustic wall louvre

SOUND-  
REDUCTION  
LOUVRE

ALUMINIUM



The acoustic properties of the Renson®-blades have been tested by the internationally recognized laboratory, IFT Lab Rosenheim (Germany) Water resistance tested by BSRIA laboratories.

### MATERIAL

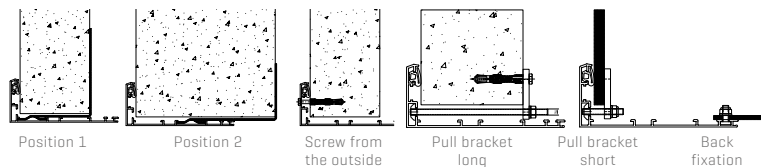
- Aluminum profiles AlMgSi 0,5 (according to EN 12020-2)
- Acoustic insulation material: non-flammable mineral wool
- Stainless steel mesh 304 6x6mm
- Finishing: anodized in satin colour (20 micron) or powder-coated in any RAL or Syntha Pulvin colour (40 micron)
- 100% stainless

### DIMENSIONS

- Blade pitch: 150 mm
- Depth to fit: 218 mm
- Flange size: 55 mm
- Height in steps of 150 mm (space between blades)
- Minimum dimensions: 300 W x 410 H

### FIXING

- Fixing bracket: installation with bracket no. 1428 possible
  - position 1: up to 100 mm wall thickness
  - position 2: for wall thickness up to 200 mm
- Screws: Fix the screws from the outside through the flange (screw holes upon request)
- Pull bracket: fixation with a long pull bracket and expander bolts for wall mounting or a short pull bracket for connection to a ventilation channel (pull bracket rod optional)
- Fixation on the backside: by screwing a hammerhead bolt to a structural backframe
- For louvres 446/300 larger than 3m<sup>2</sup>, a backframe structure is required



### SEALING POSSIBILITIES

- Sealing gasket: suitable for reduction of contact sounds (option sealing gasket)
- PU sealing tape: against water infiltration (option PU sealing tape)
- Silicone seal: seal the flange on the outside with silicone (option silicone)

### OPTIONS

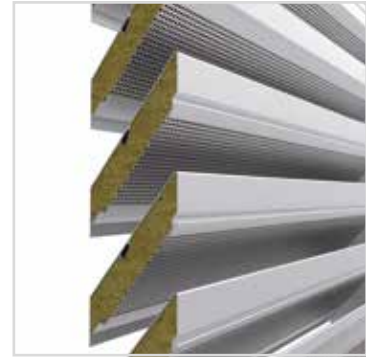
- Water channel
- Drainage profile
- Stainless steel 304 insect screen 2,3x2,3 or mesh (10x10/20x20 mm) or without
- Insect screen or mesh in stainless steel 316
- Filter
- Without flange



## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

<b>Weatherability</b>		(EN 13030)
Class [details see p. 12]		A4 [0 m/s]
<b>Airflow</b>		(EN 13030)
K-factor [entry]		37.30
K-factor [discharge]		41.90
C <sub>e</sub> coefficient		0.164
C <sub>d</sub> coefficient		0.150
<b>Comfort</b>		(EN ISO 140-10, EN ISO 717-1)
Sound reduction R <sub>w</sub> [C;C <sub>r</sub> ]		15 [-1;-4] dB
<b>Technical data</b>		
Visual free area		54%
Physical free area		34%
Waterproof		A [1 m/s]
Total depth		225 mm

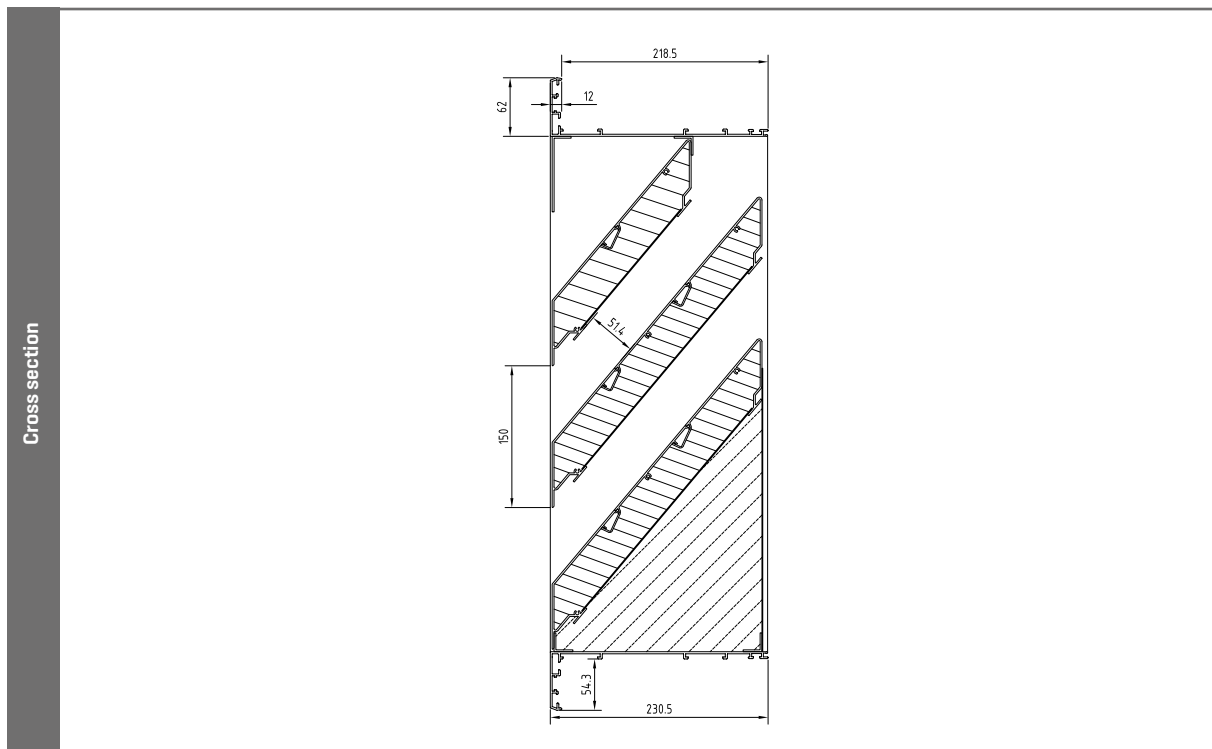


Section detail

## SOUND REDUCTION IN DB PER FREQUENCY

f in Hz	R in dB
63	15.0
125	8.7
250	4.5
500	9.1
1000	18.2
2000	23.7
4000	15.8

## TECHNICAL DRAWINGS


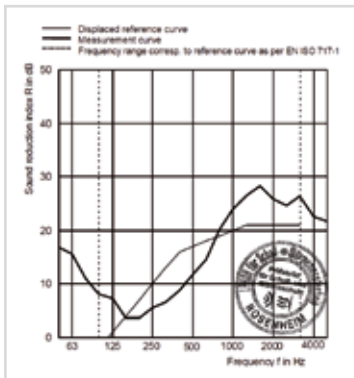


# 446/300

## Acoustic wall louvre

SOUND-  
REDUCTION  
LOUVRE

ALUMINIUM



The acoustic properties of the Renson®-blades have been tested by the internationally recognized laboratory, IFT Lab Rosenheim (Germany) Water resistance tested by BSRIA laboratories.

### MATERIAL

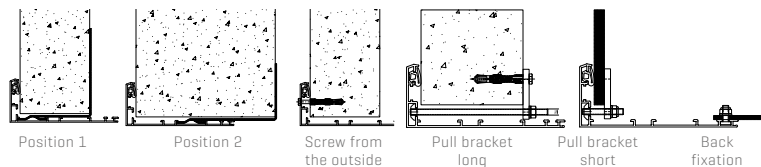
- Aluminum profiles AlMgSi 0,5 (according to EN 12020-2)
- Acoustic insulation material: non-flammable mineral wool
- Stainless steel mesh 304 6x6mm
- Finishing: anodized in satin colour (20 micron) or powder-coated in any RAL or Syntha Pulvin colour (40 micron)
- 100% stainless

### DIMENSIONS

- Blade pitch: 150 mm
- Depth to fit: 293 mm
- Flange size: 55 mm
- Height in steps of 150 mm (space between blades)
- Minimum dimensions: 311 W x 421 H

### FIXING

- Fixing bracket: installation with bracket no. 1428 possible
  - position 1: up to 100 mm wall thickness
  - position 2: for wall thickness up to 200 mm
- Screws: Fix the screws from the outside through the flange (screw holes upon request)
- Pull bracket: fixation with a long pull bracket and expander bolts for wall mounting or a short pull bracket for connection to a ventilation channel (pull bracket rod optional)
- Fixation on the backside: by screwing a hammerhead bolt to a structural backframe
- For louvres 446/300 larger than 3m<sup>2</sup>, a backframe structure is required



### SEALING POSSIBILITIES

- Sealing gasket: suitable for reduction of contact sounds (option sealing gasket)
- PU sealing tape: against water infiltration (option PU sealing tape)
- Silicone seal: seal the flange on the outside with silicone (option silicone)

### OPTIONS

- Drainage profile
- Stainless steel 304 insect screen 2,3x2,3 or mesh (10x10/20x20 mm) or without
- Insect screen or mesh in stainless steel 316
- Filter
- Without flange

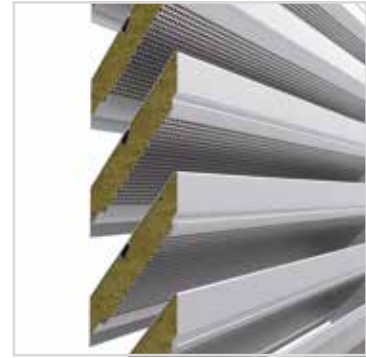




## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

<b>Weatherability</b>		[EN 13030]
Class [details see p. 12]		A4 [0 m/s]
<b>Airflow</b>		[EN 13030]
K-factor [entry]		45.93
K-factor [discharge]		45.93
C <sub>e</sub> coefficient		0.148
C <sub>d</sub> coefficient		0.148
<b>Comfort</b>		[EN ISO 140-10, EN ISO 717-1]
Sound reduction R <sub>w</sub> [C;C <sub>r</sub> ]		17 [-1;-4] dB
<b>Technical data</b>		
Visual free area		54%
Physical free area		34%
Waterproof		A [1 m/s]
Total depth		300 mm

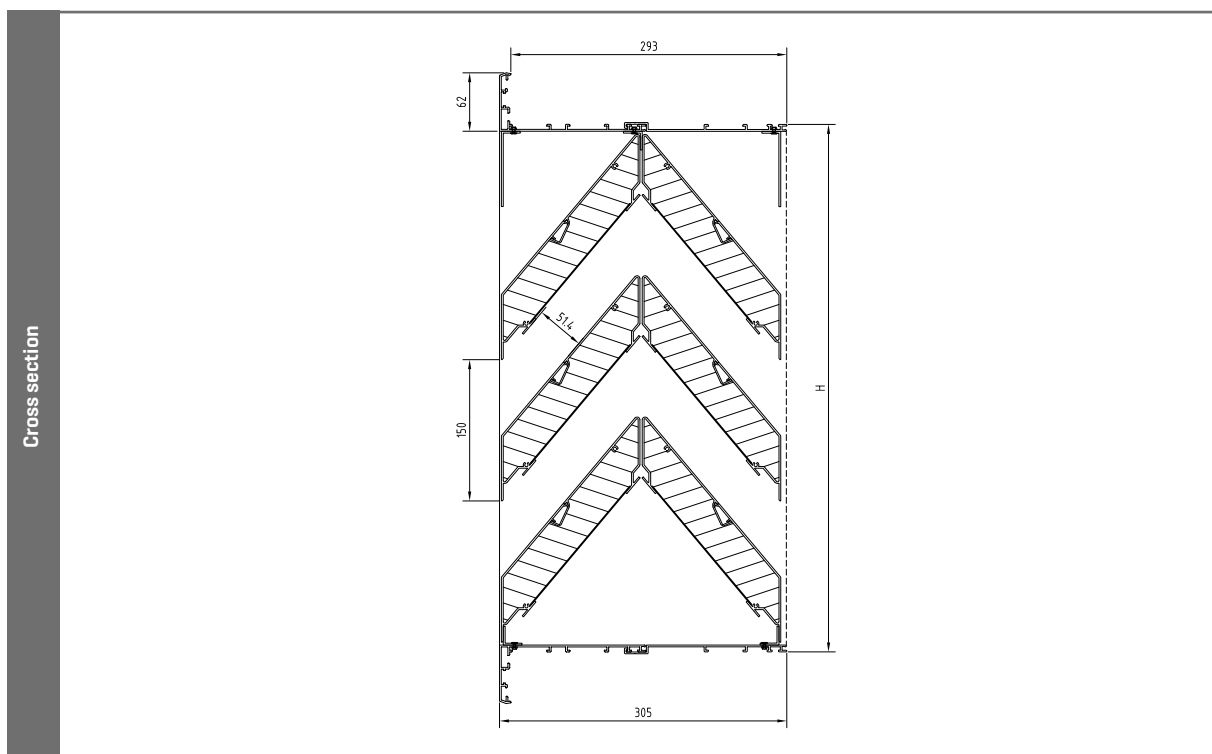


Section detail

## SOUND REDUCTION IN DB PER FREQUENCY

f in Hz	R in dB
63	15.7
125	7.3
250	5.5
500	11.8
1000	24.0
2000	25.9
4000	22.6

## TECHNICAL DRAWINGS

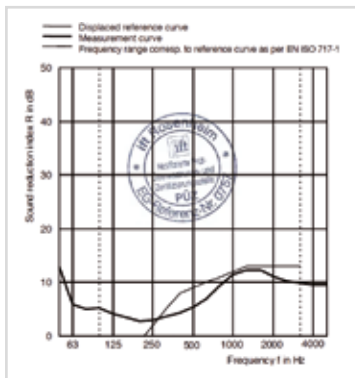


# 447/150

## Acoustic wall louvre

SOUND-  
REDUCTION  
LOUVRE

ALUMINIUM



The acoustic properties of the Renson®-blades have been tested by the internationally recognized laboratory, IFT Lab Rosenheim (Germany) Water resistance tested by BSRIA laboratories.

### MATERIAL

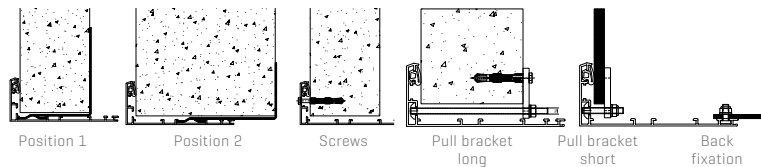
- Aluminum profiles AlMgSi 0,5 [according to EN 12020-2]
- Acoustic insulation material: non-flammable mineral wool
- Stainless steel mesh 304 6x6mm
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]
- 100 % stainless

### DIMENSIONS

- Blade pitch: 170 mm
- Depth to fit: 143 mm
- Flange size: 55 mm
- Height in steps of 150 mm [space between blades]
- Minimum dimensions: 300 W x 430 H

### FIXING

- Fixing bracket: installation with bracket no. 1428 possible
  - position 1: up to 100 mm wall thickness
  - position 2: for wall thickness up to 200 mm
- Screws: Fix the screws from the outside through the flange [screw holes upon request]
- Pull bracket: fixation with a long pull bracket and expander bolts for wall mounting or a short pull bracket for connection to a ventilation channel [pull bracket rod optional]
- Fixation on the backside: by screwing a hammerhead bolt to a structural backframe.



### SEALING POSSIBILITIES

- Sealing gasket: suitable for reduction of contact sounds [option sealing gasket]
- PU sealing tape: against water infiltration [option PU sealing tape]
- Silicone seal: seal the flange on the outside with silicone [option silicone]

### OPTIONS

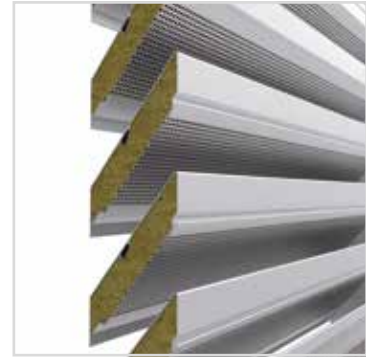
- Water channel
- Drainage profile
- Stainless steel 304 insect screen 2,3x2,3 or mesh [10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316
- Filter
- Without flange



## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		25.46
K-factor [discharge]		25.15
C <sub>e</sub> coefficient		0.198
C <sub>d</sub> coefficient		0.200
Comfort		[EN ISO 140-10, EN ISO 717-1]
Sound reduction R <sub>w</sub> [C;C <sub>v</sub> ]		9 [0;-1] dB
Technical data		
Visual free area		59%
Physical free area		37%
Total depth		150 mm

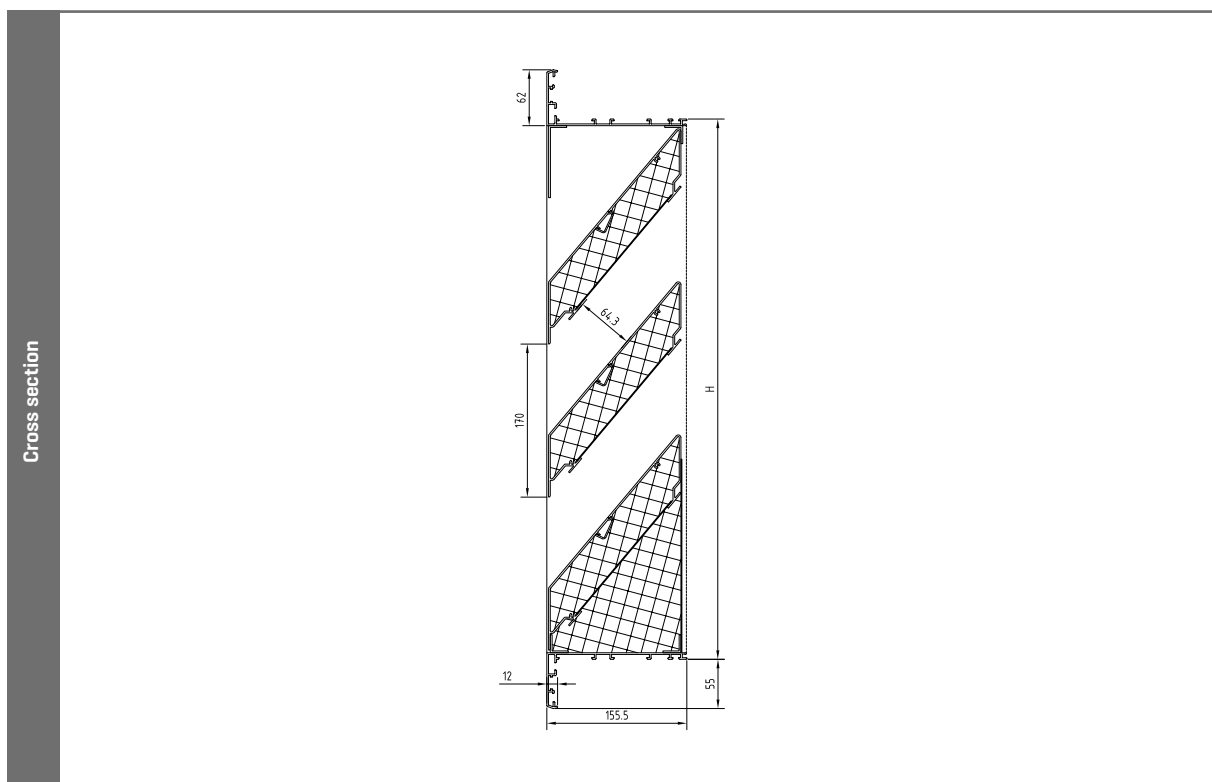


Section detail

## SOUND REDUCTION IN DB PER FREQUENCY

f in Hz	R in dB
63	5.9
125	4.2
250	2.9
500	5.4
1000	11.5
2000	11.2
4000	9.6

## TECHNICAL DRAWINGS

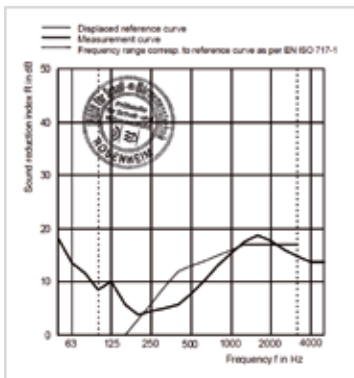


# 447/225

## Acoustic wall louvre

SOUND-  
REDUCTION  
LOUVRE

ALUMINIUM



The acoustic properties of the Renson®-blades have been tested by the internationally recognized laboratory, IFT Lab Rosenheim (Germany) Water resistance tested by BSRIA laboratories.

### MATERIAL

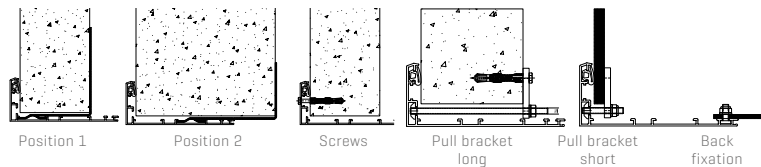
- Aluminum profiles AlMgSi 0,5 (according to EN 12020-2)
- Acoustic insulation material: non-flammable mineral wool
- Stainless steel mesh 304 6x6mm
- Finishing: anodized in satin colour (20 micron) or powder-coated in any RAL or Syntha Pulvin colour (40 micron)
- 100 % stainless

### DIMENSIONS

- Blade pitch: 170 mm
- Depth to fit: 218 mm
- Flange size: 55 mm
- Height in steps of 150 mm (space between blades)
- Minimum dimensions: 300 W x 430 H

### FIXING

- Fixing bracket: installation with bracket no. 1428 possible
  - position 1: up to 100 mm wall thickness
  - position 2: for wall thickness up to 200 mm
- Screws: Fix the screws from the outside through the flange (screw holes upon request)
- Pull bracket: fixation with a long pull bracket and expander bolts for wall mounting or a short pull bracket for connection to a ventilation channel (pull bracket rod optional)
- Fixation on the backside: by screwing a hammerhead bolt to a structural backframe.



### SEALING POSSIBILITIES

- Sealing gasket: suitable for reduction of contact sounds (option sealing gasket)
- PU sealing tape: against water infiltration (option PU sealing tape)
- Silicone seal: seal the flange on the outside with silicone (option silicone)

### OPTIONS

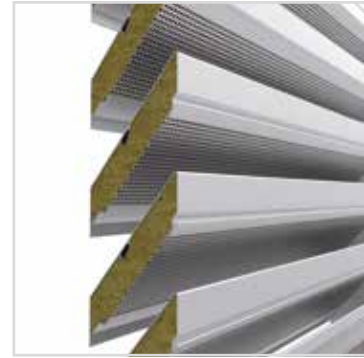
- Water channel
- Drainage profile
- Stainless steel 304 insect screen 2,3x2,3 or mesh (10x10/20x20 mm) or without
- Insect screen or mesh in stainless steel 316
- Filter
- Without flange



## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		28.58
K-factor [discharge]		30.88
C <sub>e</sub> coefficient		0.187
C <sub>d</sub> coefficient		0.180
Comfort		[EN ISO 140-10, EN ISO 717-1]
Sound reduction R <sub>w</sub> [C;C <sub>v</sub> ]		13 [-1;-3] dB
Technical data		
Visual free area		59%
Physical free area		37%
Total depth		225 mm

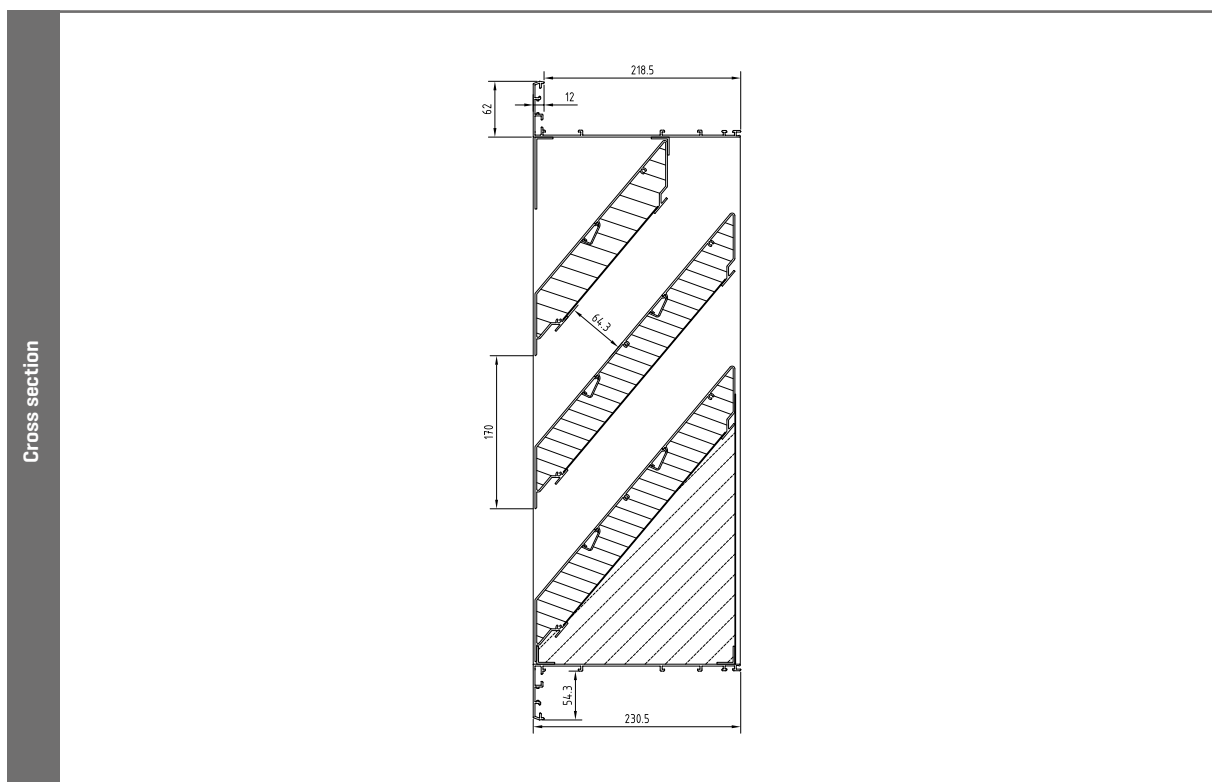


Section detail

## SOUND REDUCTION IN DB PER FREQUENCY

f in Hz	R in dB
63	13.6
125	10.1
250	4.6
500	7.8
1000	15.4
2000	17.8
4000	13.7

## TECHNICAL DRAWINGS



Cross section

# 421 RC2

## Burglar resistance louvre class RC2

BURGLAR-  
RESISTANT  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminum profiles AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel insect mesh 304 - 2.3 x 2.3 mm
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 50 mm
- Depth: 46 mm
- Flange size: 40 mm
- Minimum dimensions: 250 x 250 mm

### OPTIONS

- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316
- Without flange
- Water channel
- Drainage profile
- Removable insect mesh
- Filter

### FEATURES

- Aesthetical and functional high-quality louvre
- Burglar resistance according to class RC2, certificate surface 0.44 <math><0 <6 \text{ m}^2</math>, in accordance to EN 1627 up to 1630 and including [Sept. 2011]
- Easy to install using brackets
- 100% stainless:
  - Entirely assembled of aluminum profiles
  - All connecting pieces in aluminum and stainless steel

### TYPICAL APPLICATIONS

- Schools
- Shops
- Apartments

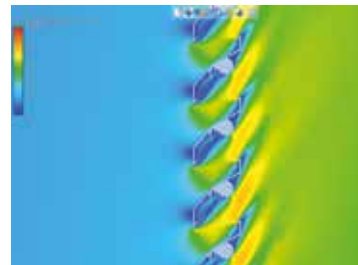


## TECHNICAL SPECIFICATIONS

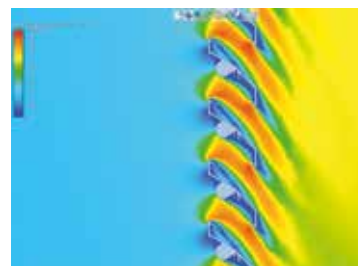
All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow	[EN 13030]
K-factor [entry]	13.82
K-factor [discharge]	12.85
C <sub>e</sub> coefficient	0.269
C <sub>d</sub> coefficient	0.279
Technical data	
Visual free area	70%
Physical free area	43%
IP class [louvre with mesh; electrical installation at least 100 mm from louvre]	IP2XD

### AIR FLOW



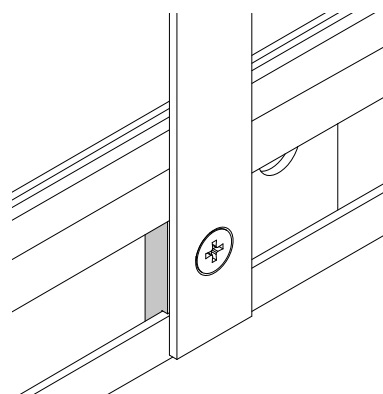
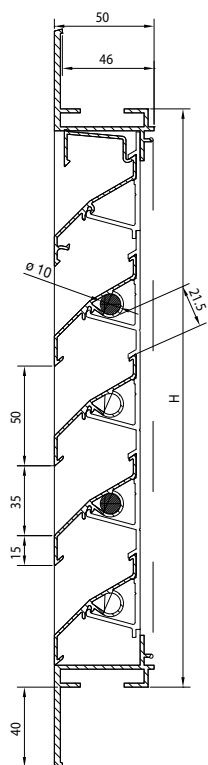
Supply



Extraction

## TECHNICAL DRAWINGS

### Cross-sections



Special brackets

# 424RC2

## Burglar resistance glazed-in louvre class RC2

BURGLAR-  
RESISTANT  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0,5 [according to EN 12020-2]
- Stainless steel 304 insect mesh [2,3 x 2,3 mm]
- Finishing: anodized in satin colour [20 micron] or powder coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 50 mm
- Minimum dimensions: 220 x 220 mm
- Flange size: 24 or 28 mm

### FIXING

- Suitable for 24 or 28 mm glazing sections

### FEATURES

- Aesthetical and functional high-quality louvre
- Burglar resistance according to class RC2 [WK2] according to EN 1627 -1630 [sept.2011] for surfaces  $0,481 < A < 6,06 \text{ m}^2$ ; official test report WTCB available upon request
- 100% stainless:
  - Entirely assembled of aluminium profiles
  - All connecting pieces in aluminium and stainless steel

### OPTIONS

- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316
- Drainage profile
- Water channel
- Removable insect mesh
- Filter

### TYPICAL APPLICATIONS

- Schools
- Shops
- Nightcooling





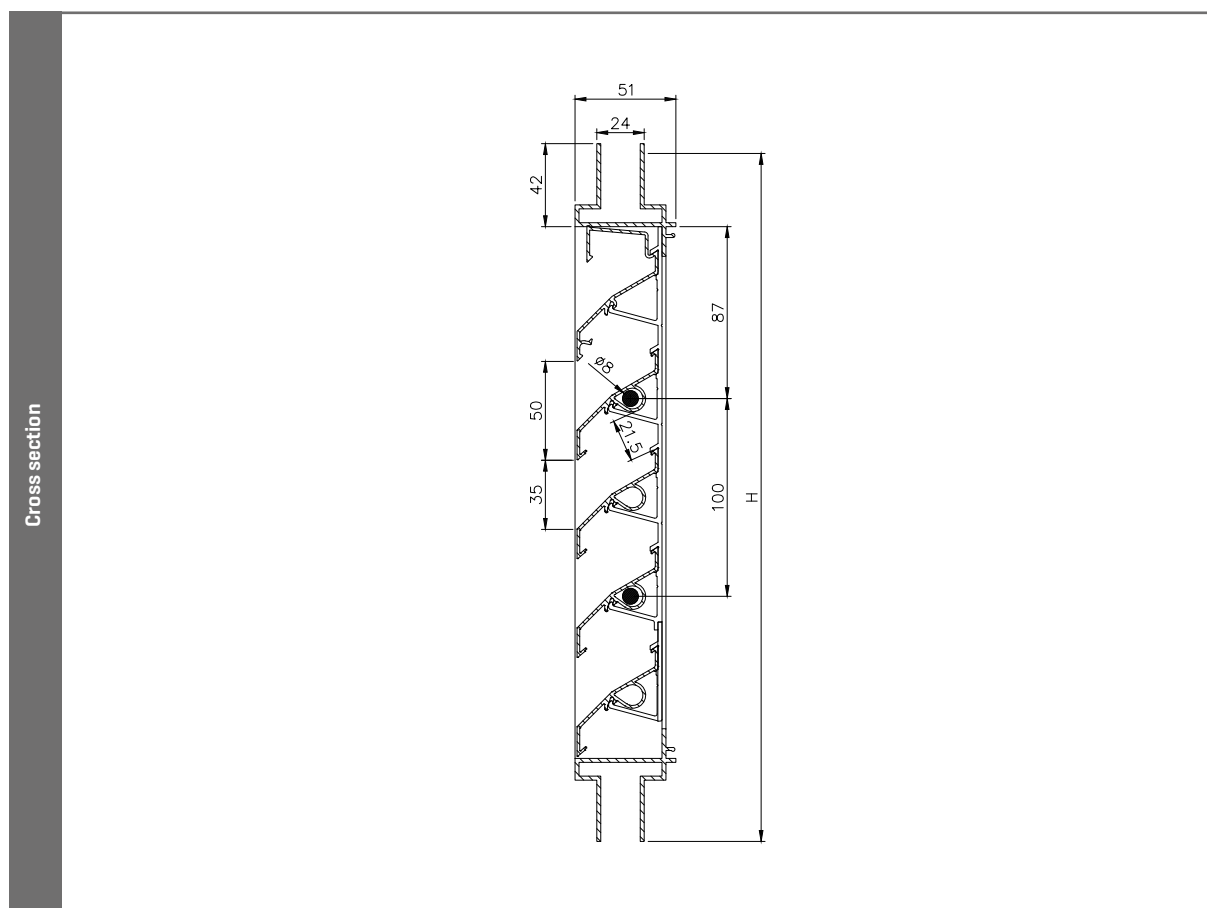
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		13.82
K-factor [discharge]		12.85
C <sub>e</sub> coefficient		0.269
C <sub>d</sub> coefficient		0.279
Technical data		
Visual free area		70%
Physical free area		43%
IP class [louvre with mesh; electrical installation at 105 mm at least]		IP2XD



## TECHNICAL DRAWINGS



# 431RC2

## Fall-through safe and burglar-resistant surface-mounted louvre

BURGLAR-  
RESISTANT  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminum profiles AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel insect mesh 304 - 2.3 x 2.3 mm
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Blade pitch: 33,3 mm
- Thickness: 31 mm
- Minimum dimensions: 170 x 170 mm

### FIXING

- Surface mounted by means of burglar resistance screws type Secu-Fast® Pin Hexagon diam. 4,2 x 38 mm A2 [included]

### FEATURES

- Aesthetical and functional high-quality louvre
- Burglar resistance according to class RC2
- 100% stainless:
  - Entirely assembled of aluminum profiles
  - All connecting pieces in aluminum and stainless steel
- Fall-through safe according to EN 13049, depending of dimensions and base material

### OPTIONS

- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

### TYPICAL APPLICATIONS

- Schools
- Shops
- Nightcooling



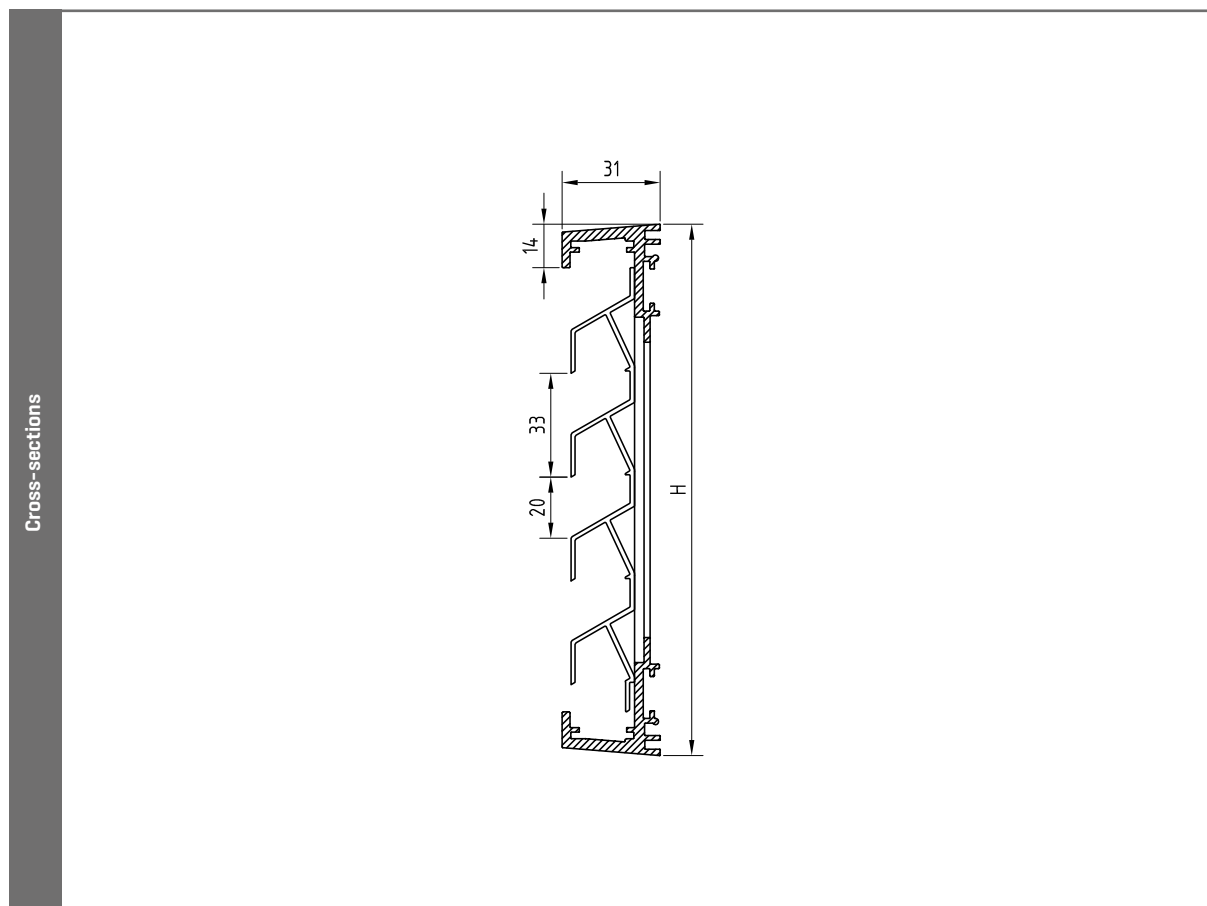
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		23.56
K-factor [discharge]		25.51
$C_e$ coefficient		0.206
$C_d$ coefficient		0.198
Technical data		
Visual free area		59%
Physical free area		40.5%



## TECHNICAL DRAWINGS



# 421 RC3

## Burglar resistance louvre class RC3

BURGLAR-  
RESISTANT  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminium profiles AlMgSi 0.5 [in accordance with EN 12020-2]
- Stainless steel insect mesh 304 - 2.3 x 2.3 mm
- Finishing: anodized in satin colour (20 micron) or powdercoated in any RAL or Syntha Pulvin colour (40 micron)

### DIMENSIONS

- Blade pitch: 50 mm
- Depth to fit: 46 mm
- Thickness: 40 mm
- Minimum dimensions: 300 x 300 mm

### OPTIONS

- Stainless steel 304 mesh (6x6/10x10/20x20 mm) or without
- Insect screen or mesh in stainless steel 316
- Water channel
- Drainage profile
- Removable insect screen
- Filter

### FEATURES

- Fall-proof resistance according to DIN EN 13049, depending on dimensions and substructure
- Aesthetic and functional high-quality louvres
- Burglar-resistant according to class RC3, certificate surface area  $0.44 < a < 6 \text{ m}^2$ , in accordance with EN 1627 through 1630 (Sept 2011)
- Easy to assemble thanks to the stainless steel dowels included in the delivery
- 100% stainless steel:
  - Entirely constructed of aluminium profiles
  - All connector materials are made of aluminium and stainless steel

### TYPICAL APPLICATIONS

- Schools
- Shops
- Apartment blocks



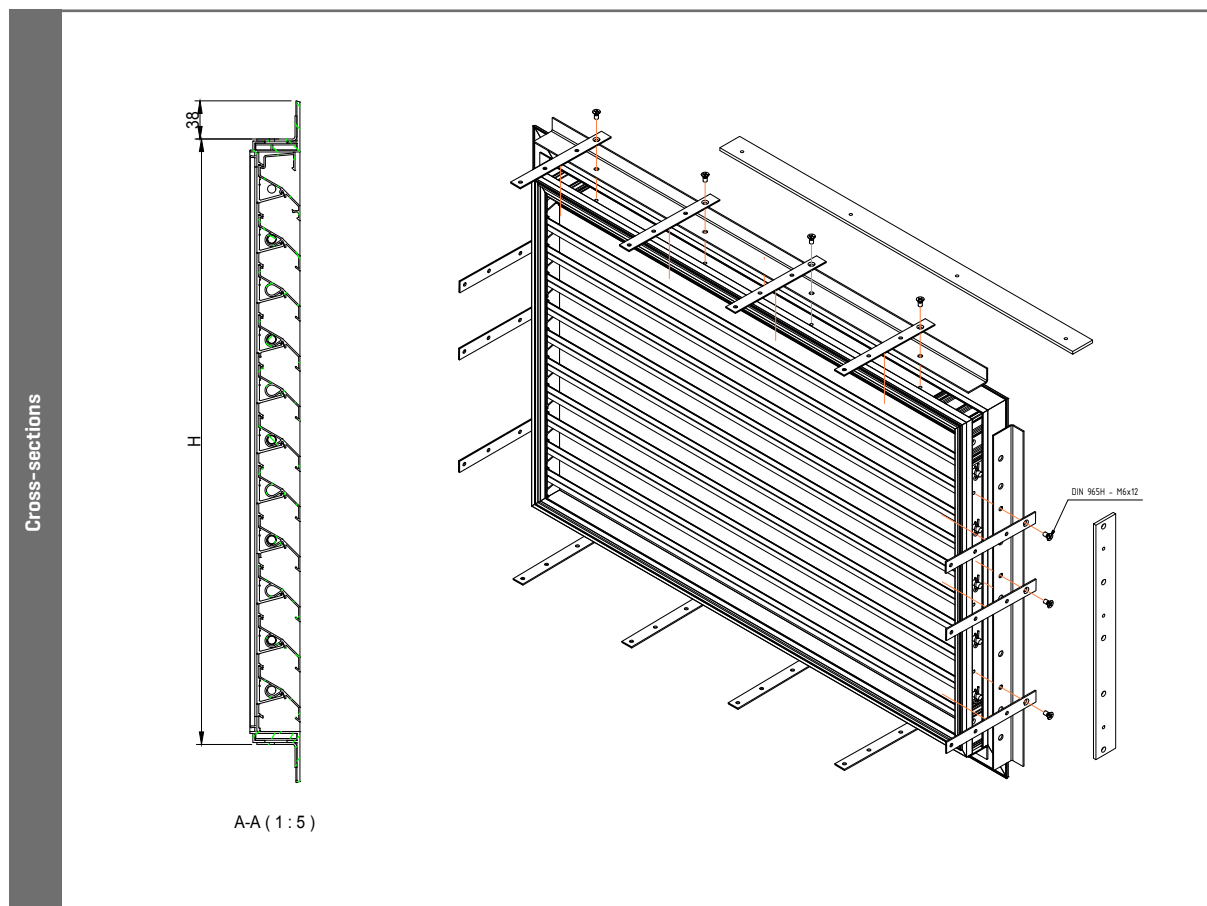
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		13.82
K-factor [discharge]		12.85
C <sub>e</sub> coefficient		0.269
C <sub>d</sub> coefficient		0.279
Technical data		
Visual free area		70%
Physical free area		43%
IP class [louvre with mesh; electrical installation at least 100 mm from louvre]		IP2XD



## TECHNICAL DRAWINGS

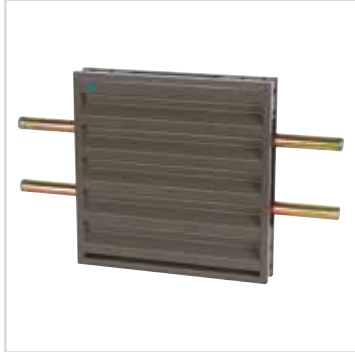


# 423RC4

## Burglar resistance louvre class RC4

BURGLAR-  
RESISTANT  
LOUVRE

ALUMINIUM



### MATERIAL

- Made from aluminum profiles AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel insect mesh 304 - 2.3 x 2.3 mm
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]
- Every second blade has an inox steel bar of diam. 20 mm

### DIMENSIONS

- Blade pitch: 50 mm
- Depth: 50 mm
- Frame without flange
- Minimum dimensions: 250 x 250 mm
- Maximum width: 2800 mm

### FIXING

- The steel bars of the louvre need to be built into the wall.
- Frame without flange

### OPTIONS

- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316
- Water channel
- Drainage profile
- Filter

### FEATURES

- Aesthetical and functional high-quality louvre

### TYPICAL APPLICATIONS

- Banks, IT rooms, museums and jewellers.



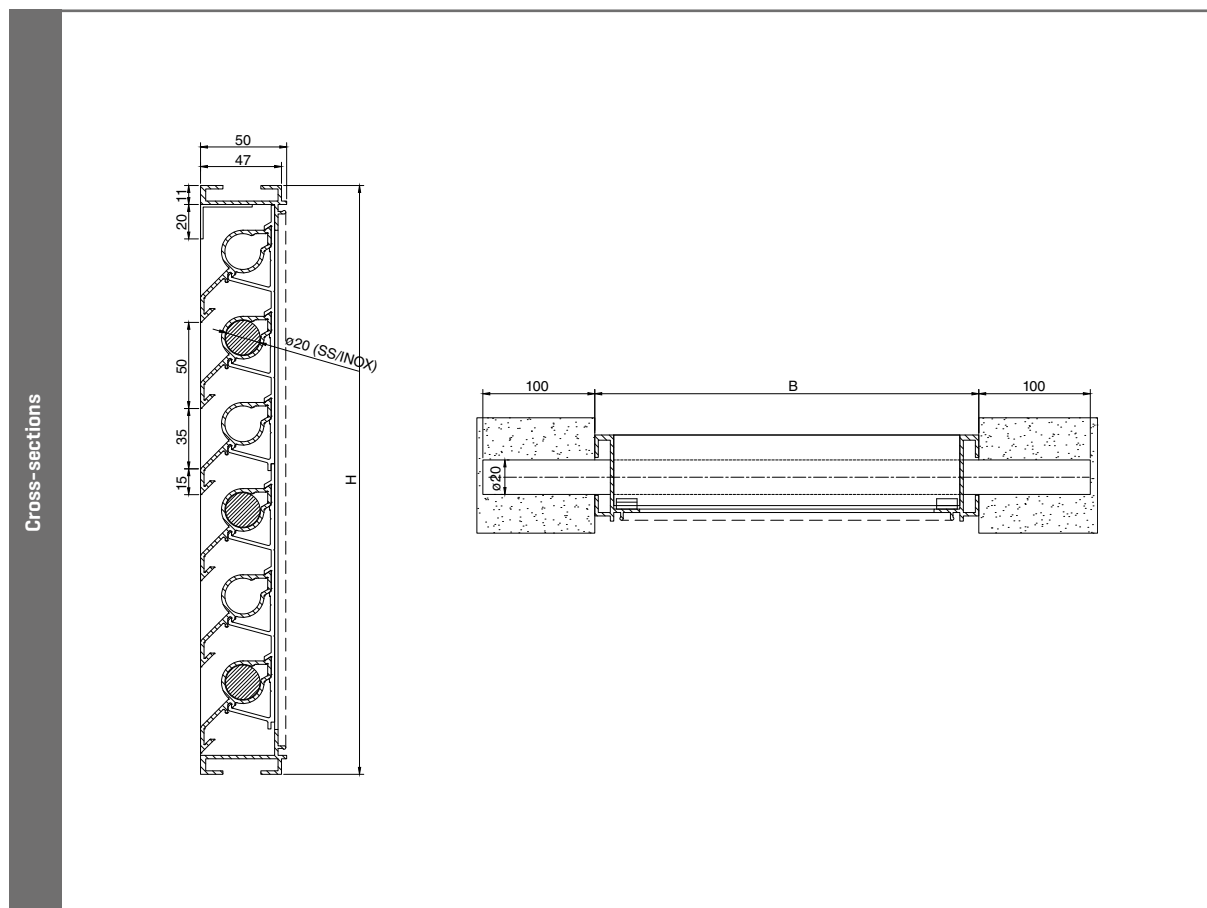
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		27.06
K-factor [discharge]		27.28
C <sub>e</sub> coefficient		0.193
C <sub>d</sub> coefficient		0.192
Technical data		
Visual free area		70%
Physical free area		22%
IP class		IP2XD



## TECHNICAL DRAWINGS



# 440

## Turret

ROOF TURRET

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]
- Cover plate
  - In aluminium sheet
  - Acoustic version optional

### DIMENSIONS

- Maximum dimensions in one piece 900 mm width, 1900 mm long and 1000 mm height
- Larger sizes possible on request

### TYPES

All blade types possible, for example:

- 440/11: with blade L.033.01 of louvre 411 [blade pitch 33 mm]
- 440/21: with blade L.050.00 of louvre 421 [blade pitch 50 mm]
- 440/80: with blade L.060HF of louvre 480 [blade pitch 60 mm]
- 440/81: with blade L.050HF of louvre 481 [blade pitch 50 mm]

### OPTIONS

- Water channel

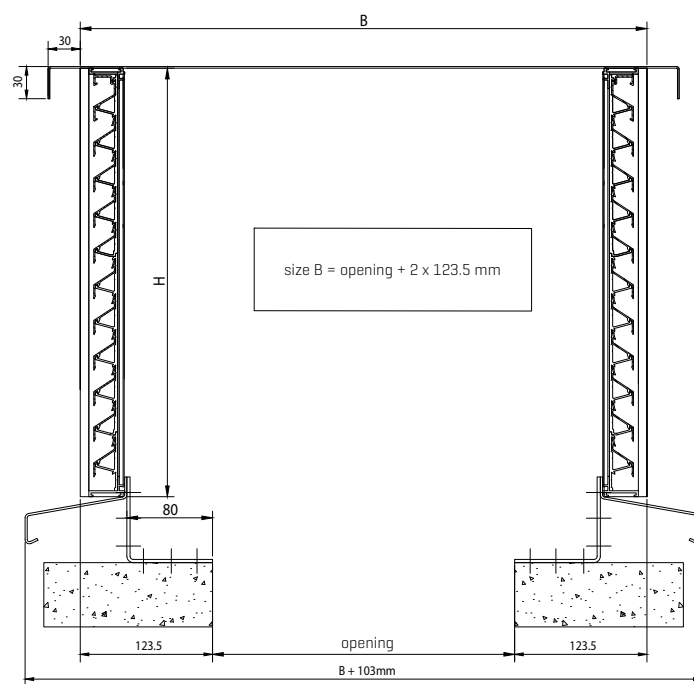
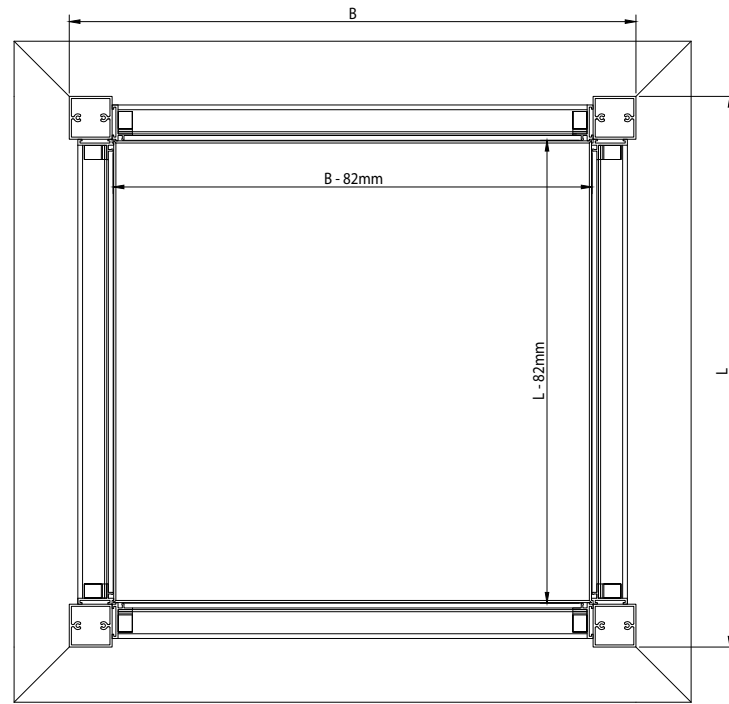
### TYPICAL APPLICATIONS

- Office ventilation [Nightcooling]
- Manufacturing plants



# TECHNICAL DRAWINGS

Cross-sections

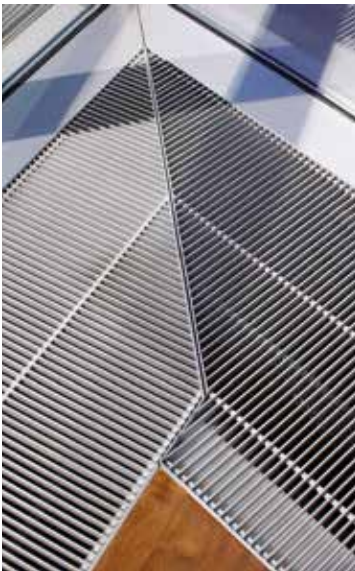


# 311

## Convactor grille

FLOOR GRILLE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Finishing: anodised in satin colour [20 microns] or powder-coated in any RAL or Syntha Pulvin colour [40 microns]
- The frame is lined with a rubber gasket to guarantee a reduced noise level

### DIMENSIONS

- Bar spacing: 12.5 mm
  - Grille section: 20 x 4 mm
  - 311/1 - 311/2
    - Length floor grille: min. 100 mm - max. 3500 mm  
[from 1300 mm multiple grille lengths]
    - Width floor grille: min. 100 mm - max. 1215 mm
  - 311/3:
    - Length frameless floor grille: min. 85 mm - max. 1300 mm
    - Width frameless floor grille: min. 85 mm - max. 1200 mm
- Remark: If the floor grille width > 650 mm, then an underlying support structure must be provided.*
- Effective opening = length and width - 50 mm
  - Bars arranged crosswise

### FIXING

- Brackets ref. 231

### TYPICAL APPLICATIONS

- Ground heating

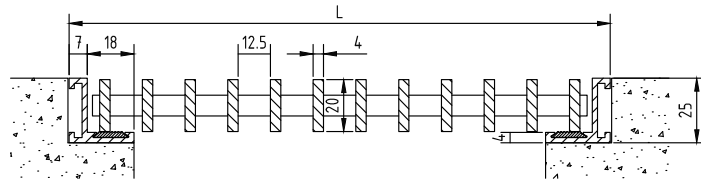
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

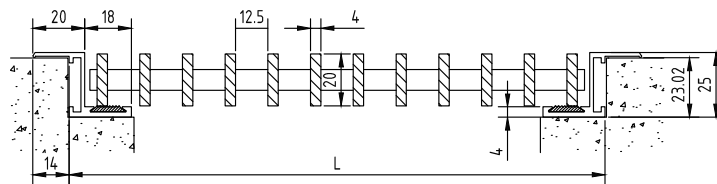
Technical data	
Visual free area	76%
Physical free area	76%

## TECHNICAL DRAWINGS

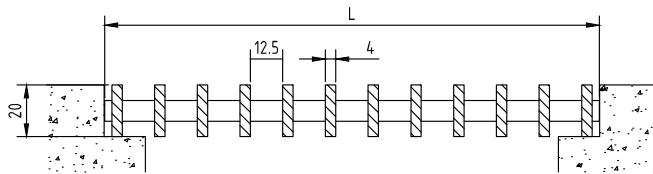
Cross-sections



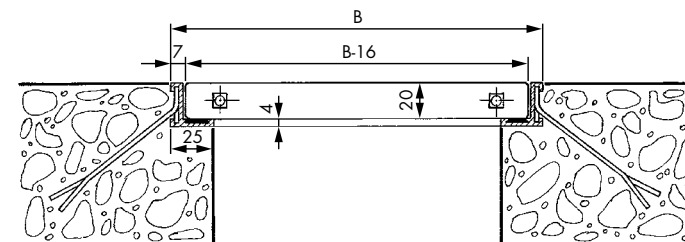
311/1: Floor grille or convector cover with flangeless "L" frame



311/2: Floor grille or convector cover with flanged "Z" frame



311/3: Frameless floor grille or convector cover



# 371

## Floor grille, heavy-duty series

FLOOR GRILLE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]
- The frame is lined with a rubber gasket to guarantee a reduced noise level

### DIMENSIONS

- Bar spacing: 12.5 mm
- Grille section: 20 x 8 mm
- 371/1 - 371/2
  - Length floor grille: min. 135 mm - max. 3500 mm [from 1200 mm multiple lengths]
  - Width floor grille: min. 135 mm - max. 915 mm

*Remark: frame must be fully supported*

- 371/3:
  - Length frameless floor grille: min. 120 mm - max. 1200 mm
  - Width frameless floor grille: min. 120mm - max. 900 mm

*Remark: If the floor grille width > 650 mm, then an underlying support structure must be provided.*

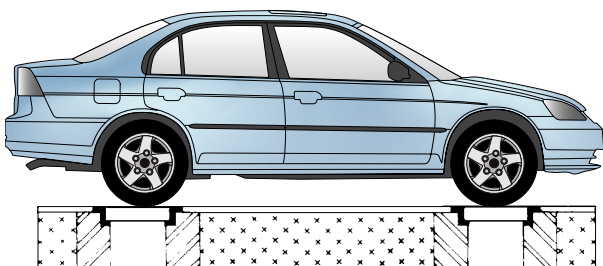
- Effective opening = length and width - 50 mm
- Bars arranged crosswise

### FIXING

- Brackets ref. 231

### TYPICAL APPLICATIONS

- Grilles for swimming pool drains, cellars, garages, car parks, abattoirs, etc
- To cover underfloor wiring ducts in computer rooms



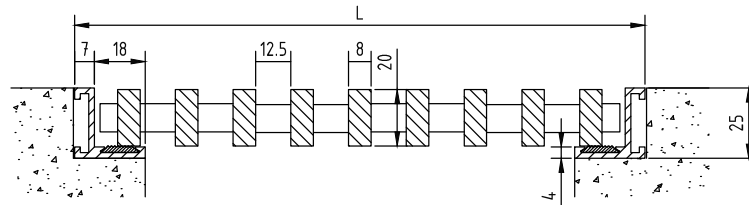
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

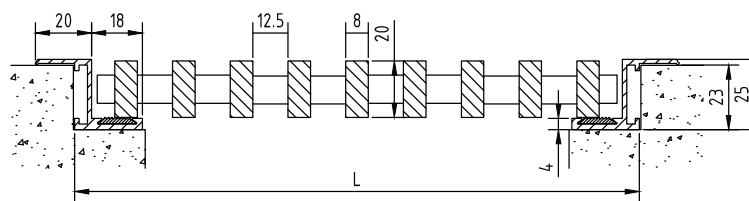
Technical data	
Visual free area	61%
Physical free area	61%

## TECHNICAL DRAWINGS

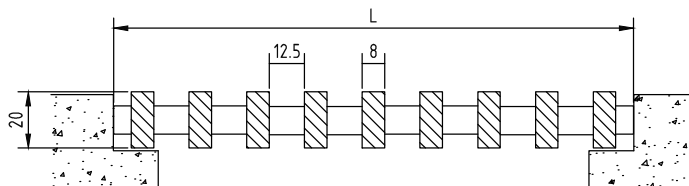
Cross-sections



371 / 1: Floor grille with flangeless "L" frame



371 / 2: Floor grille with flanged "Z" frame



371 / 3: Frameless floor grille

# 392

## Linear bar grille

LINEAR BAR  
GRILLE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

*Remark: Grille not to be walked on.*

### DIMENSIONS

- Bar spacing: 10 mm
- Grille section: 16 x 3 mm
- 392/2:
  - Length linear bar grille: min. 130 mm - max. 3500 mm [from 1600 mm multiple grille elements]
  - Width linear bar grille: min. 55 mm - max. 311 mm
- 392/3:
  - Length linear bar grille without frame: min. 120 mm - max. 1600 mm
  - Width linear bar grille without frame: min. 45 mm - max. 300 mm
- Minimum dimensions: 100 x 60 mm
- Effective opening = length and width - 50 mm
- Deflection: 15°
- Bars arranged lengthwise

### FIXING

- No fasteners

### OPTIONS

- Linear bar grille with flangless 'L' frame

### TYPICAL APPLICATIONS

- Radiator frame

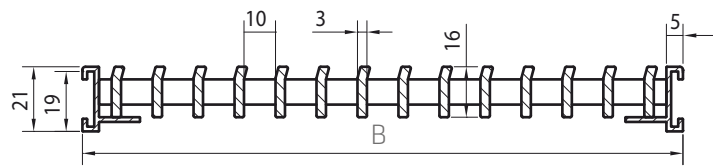
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

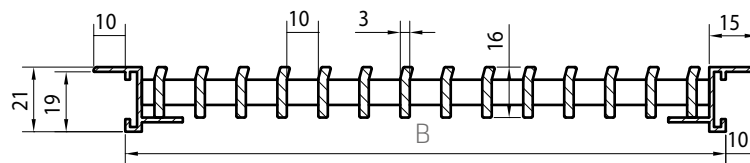
Airflow		[EN 13030]
K-factor [entry]		5.71
K-factor [discharge]		5.71
C <sub>e</sub> coefficient		0.419
C <sub>d</sub> coefficient		0.419
Technical data		
Visual free area		76%
Physical free area		76%

## TECHNICAL DRAWINGS

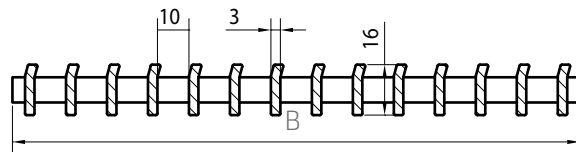
Cross-sections



Option: Linear bar grille without flanged "Z" frame



392/2: Linear bar grille with flanged "Z" frame



392/3: Frameless linear bar grille

# 394

## Linear bar grille for self-assembly

LINEAR BAR  
GRILLE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

Remark: Grille not to be walked on.

### DIMENSIONS

- Bar spacing: 9.5 mm
- Section length: 3 or 5.6 metres
- 394/2
  - Length linear bar grille: min. 110 mm - max. 3510 mm
  - Width linear bar grille:
    - Per grille element: min. 55 mm - max. 220 mm
    - Coupled: max. 1055 mm
- 394/3:
  - Length linear bar grille without frame: min. 100 mm - max. 3500 mm
  - Width linear bar grille without frame:
    - Per grille element: min. 45 mm - max. 209 mm
    - Coupled: max. 1045 mm
- Clip length: 209 mm
- Bars arranged lengthwise

### FIXING

- No fasteners

### NUMBER OF CLIP SECTIONS/LENGTH

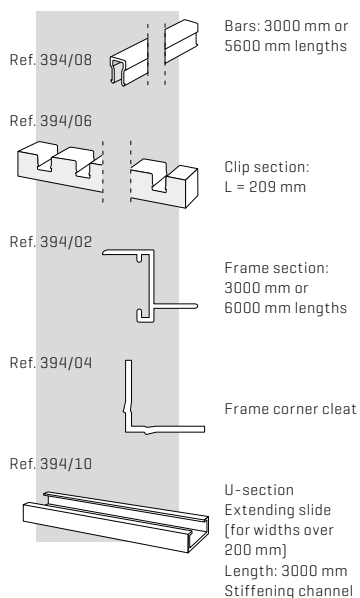
- 300 - 500 mm: 2 pieces
- 501 - 900 mm: 3 pieces
- 901 - 1300 mm: 4 pieces
- 1301 - 1700 mm: 5 pieces
- 1701 - 2100 mm: 6 pieces
- 2101 - 2600 mm: 7 pieces
- 2601 - 3000 mm: 8 pieces

### ELEMENTS

- Simple clip assembly

### TYPICAL APPLICATIONS

- Counters, radiator frame





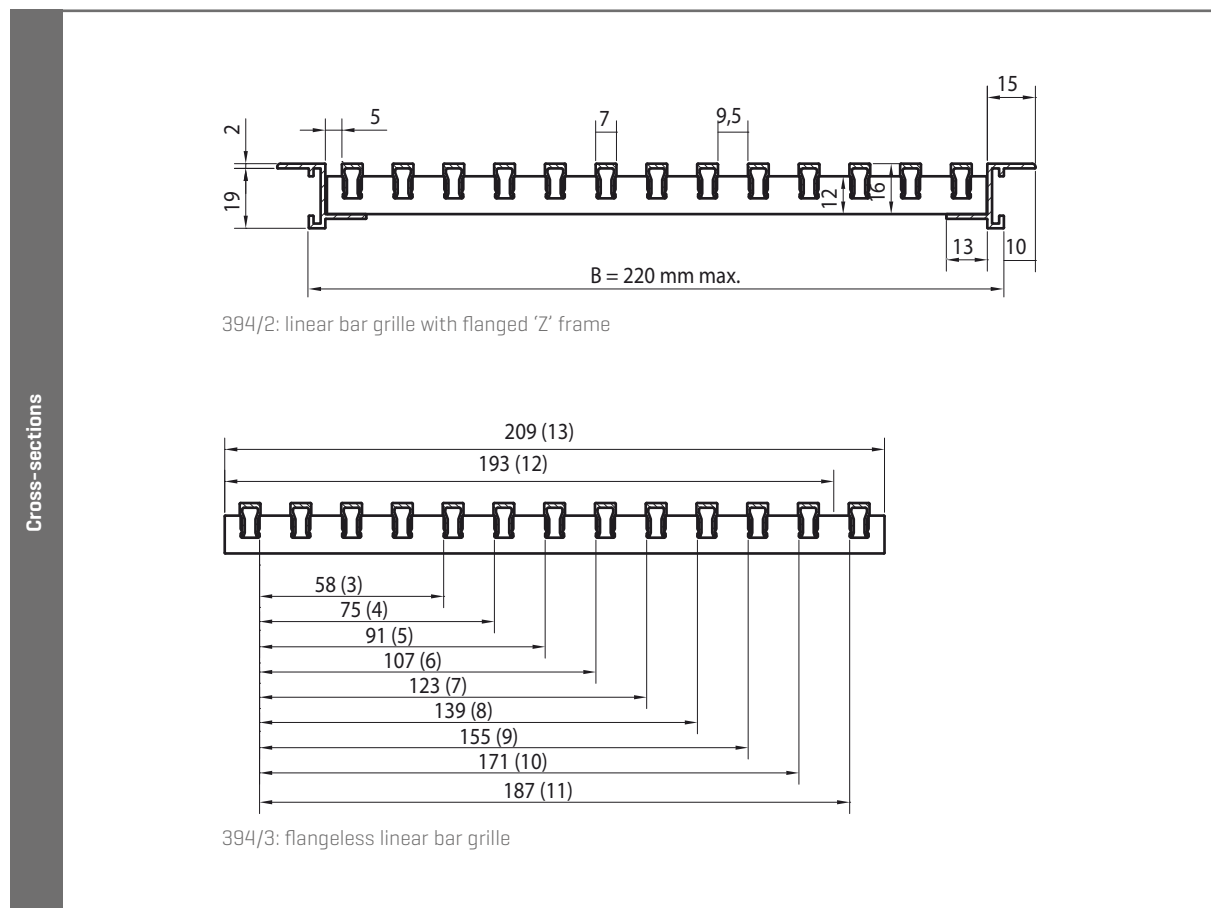
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Technical data	
Visual free area	59%
Physical free area	59%



## TECHNICAL DRAWINGS



# 461

## Door grille

DOOR GRILLE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]
- Opaque grille with backframe and fixing screws

### DIMENSIONS

- Blade pitch: 20 mm
- Door thickness: 30 to 54 mm
- Maximum width [in one piece]: 800 mm
- Minimum height: 76 mm

### OPTIONS

- Controllable version [type 463] on request
- Frame for 55 to 80 mm thickness

### FIXING

- Screws are included

### STOCK MODELS

Dimensions (W x H) mm	Natural-coloured anodised	Renson Standard WHITE	RAL 8019	Airflow at 2 Pa (m <sup>2</sup> /h)	Airflow at 20 Pa (m <sup>2</sup> /h)	Visual free area	Physical free area
200 x 100	00046121			19.3	61.1	93%	39%
400 x 200	00046142	00461426	00461427	83.8	264.9		
400 x 300	00046143			127.9	404.3		
500 x 300	00046153			160.7	508.0		
600 x 400	00046164			260.1	822.6		
425 x 76	00004611	00004616	00004615	31.0	97.9		



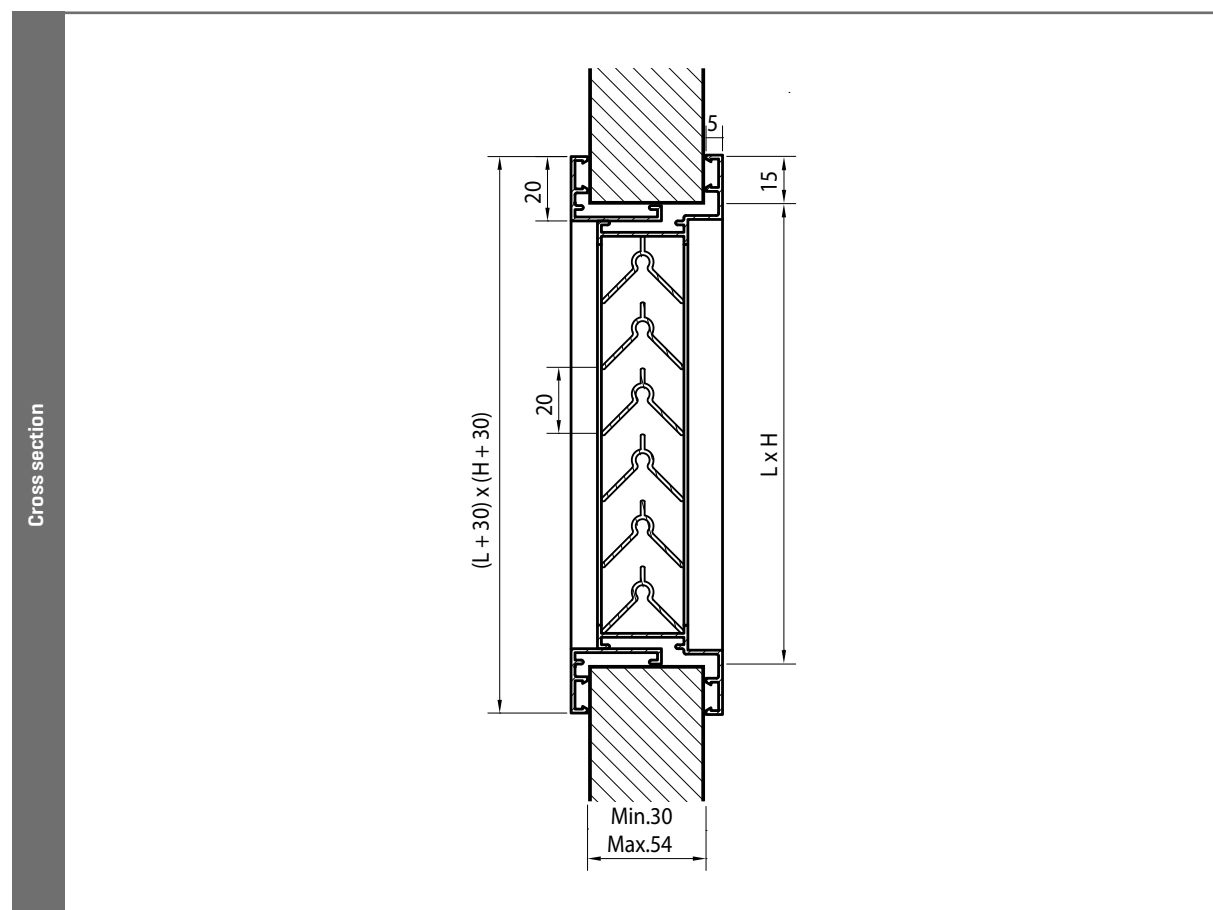
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Technical data	
Visual free area	93%
Physical free area	39%



## TECHNICAL DRAWINGS



# 468AK/1

## Interior acoustic door grille

DOOR GRILLE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]
- Sound absorbing material: synthetic foam
- Labyrinth type blades

### DIMENSIONS

- Minimum dimensions: 200 x 180 mm
- Maximum dimensions: 800 x 775 mm
- Height in 85 mm steps [blade pitch]
- Depth to fit: 48 mm
- Flange size: 30 mm

### OPTIONS

- Backframe 468 AK/2 [see p. 142]

### TYPICAL APPLICATIONS

- Schools
- Hospitals
- Elderly homes

*Remark: for internal use only!*

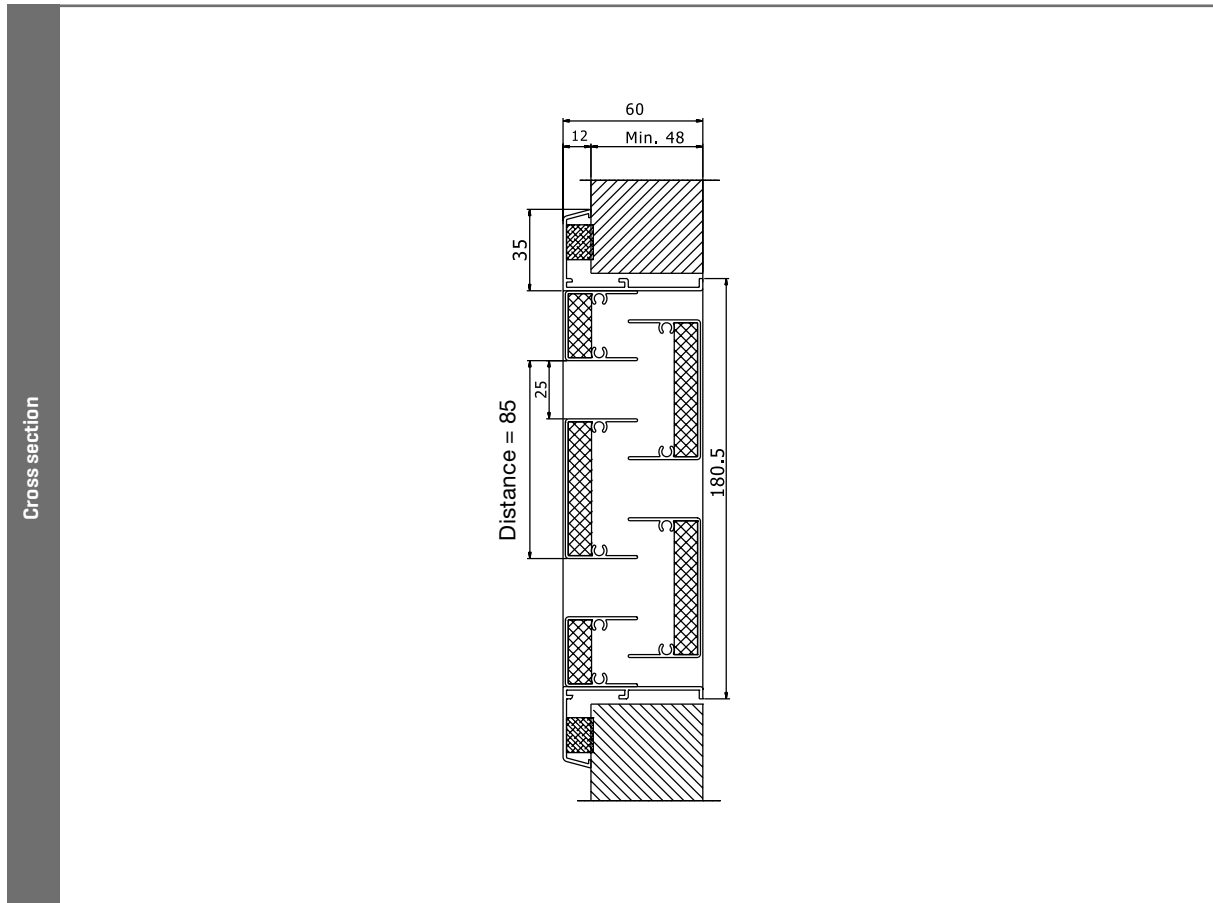


## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

<b>Airflow</b>		[EN 13030]	[EN ISO 140-10, EN ISO 717-1]
K-factor [entry]		86.85	
K-factor [discharge]		89.35	$R_w [C;C_v]: 8 [-1;-2]$ dB
$C_e$ coefficient		0.107	
$C_d$ coefficient		0.106	
<b>Dimensions [W x H]</b>	[EN 130141-1]	<b>Airflow at 2 Pa in m<sup>3</sup>/h</b>	<b>Sound reduction <math>D_{n,e,w} [C;C_v]</math></b>
Q at 2 Pa - grille 292 x 180 mm		25 m <sup>3</sup> /h	30 [-1;-2] dB
Q at 2 Pa - grille 382 x 265 mm		50 m <sup>3</sup> /h	28 [-1;-2] dB
Q at 2 Pa - grille 432 x 350 mm		75 m <sup>3</sup> /h	26 [-1;-2] dB
Q at 2 Pa - grille 452 x 435 mm		100 m <sup>3</sup> /h	25 [-1;-2] dB
<b>Technical data</b>			
Visual free area		29%	
Physical free area		29%	
IP class [louvre with mesh]		IP2XD	

## TECHNICAL DRAWINGS



# 468AK/2

## Interior acoustic door grille

DOOR GRILLE

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]
- Sound absorbing material: synthetic foam

### DIMENSIONS

- Minimum dimensions: 200 x 193 mm H
- Maximum dimensions: 800 x 788 mm H
- Height in 85 mm steps [blade pitch]
- Door thickness: from 37.5 to 92 mm

### AVAILABLE MODELS

- The 468 AK/2 is available in Renson® standard WHITE in the following standard sizes: 292 x 193 mm, 382 x 278 mm, 432 x 363 mm and 452 x 448 mm
- Other sizes and colours available on request

### FIXING

- Screws included

### TYPICAL APPLICATIONS

- Schools, dressing rooms, garagedoors, central heating system rooms, hospitals

*Remark: for internal use only!*

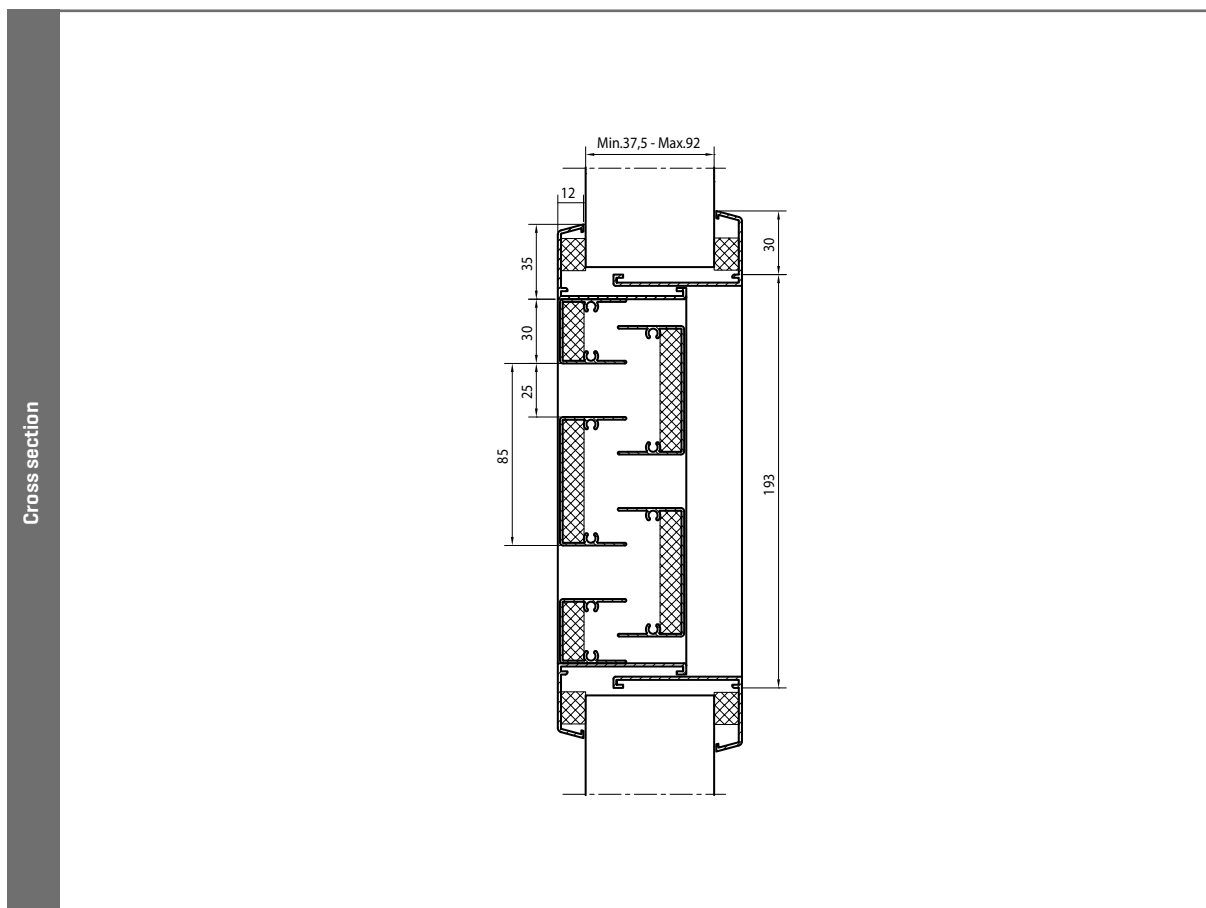


## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

<b>Airflow</b>		[EN 13030]	[EN ISO 140-10, EN ISO 717-1]
K-factor [entry]		86.85	
K-factor [discharge]		89.35	$R_w [C;C_v]: 8 [-1;-2]$ dB
$C_e$ coefficient		0.107	
$C_d$ coefficient		0.106	
<b>Dimensions [W x H]</b>	[EN 130141-1]	<b>Airflow at 2 Pa in m<sup>3</sup>/h</b>	<b>Sound reduction <math>D_{n,e,w} [C;C_v]</math></b>
Q at 2 Pa - grille 292 x 193 mm		25 m <sup>3</sup> /h	30 [-1;-2] dB
Q at 2 Pa - grille 382 x 278 mm		50 m <sup>3</sup> /h	28 [-1;-2] dB
Q at 2 Pa - grille 432 x 363 mm		75 m <sup>3</sup> /h	26 [-1;-2] dB
Q at 2 Pa - grille 452 x 448 mm		100 m <sup>3</sup> /h	25 [-1;-2] dB
<b>Technical data</b>			
Visual free area		29%	
Physical free area		29%	
IP class [louvre with mesh]		IP2XD	

## TECHNICAL DRAWINGS



# 461 AK SILENDO®

Acoustic door grille for residential sector

DOOR GRILLE

ALUMINIUM



## MATERIAL

- Sound absorbing material: synthetic foam
- End caps: in Luran S ASA polymer (colourfast, weatherproof and UV resistant)
- End caps: available in grey, black or white

## DIMENSIONS

- Length: 425 mm
- Height: 48 mm
- Door thickness: min. 37 mm - max. 43 mm

## FIXING

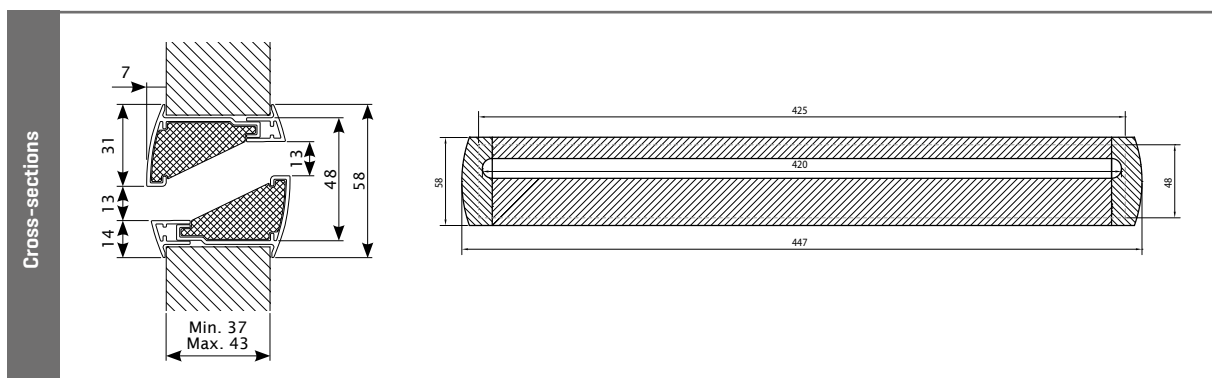
- Click system

## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13141-1]
Q at 1 Pa		17.7 m³/h
Q at 2 Pa		25.1 m³/h
Q at 10 Pa		56.1 m³/h
Q at 20 Pa		79.4 m³/h
Comfort		[EN ISO 140-10, EN ISO 717-1]
Sound reduction $D_{n,e,w}$ [C;C <sub>v</sub> ]		32 [0;-2] dB
Technical data		
Visual free area		27%
Physical free area		27%
Colours		[EN 13501-2]
Natural-coloured anodised		01046111
Renson Standard WHITE		01046116
RAL 8019		01046117

## TECHNICAL DRAWINGS







Door grille 461 [see p. 142]

# 469 - INVISIDO®

## Discreet door grille

DOOR GRILLE

ALUMINIUM



### MATERIAL

- Endcaps: in Luran S ASA polymer (true colour, weather and UV resistant)
- Endcaps are available in black, grey, cream, or white; other colours available upon request

### DIMENSIONS

- Maximum length: 2000 mm
- Standard dimensions: 725 mm [type 730], 825 mm [type 830], 925 mm [type 930]
- Door thickness: starting at 35 mm

### FIXING

- Screws included

## TECHNICAL SPECIFICATIONS

### Invisido® 469 [type 830]

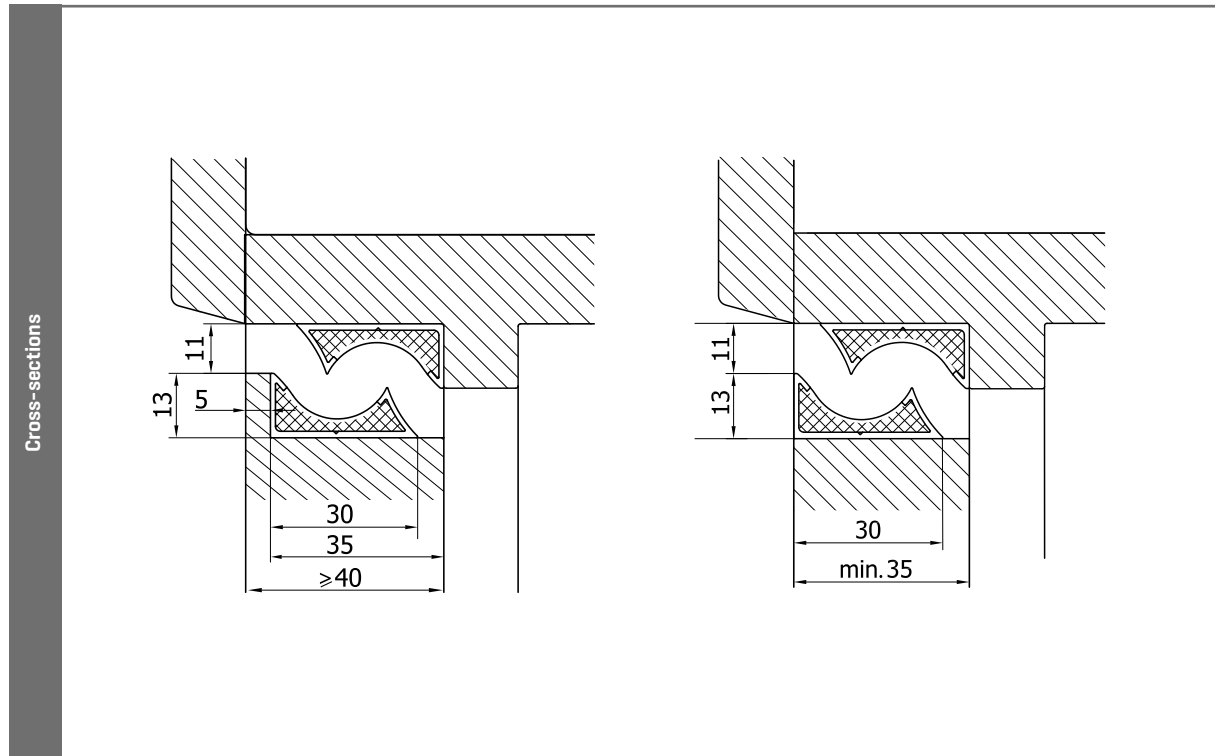
All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13141-1]		
Q at 1 Pa		17.6 m³/h [4.9 dm³/s]		
Q at 2 Pa		25.3 m³/h		
Q at 10 Pa		58.8 m³/h		
Q at 20 Pa		84.7 m³/h		
Comfort		[EN ISO 140-10, EN ISO 717-1]		
Sound reduction $D_{n,e,w}$ [C;C <sub>r</sub> ]		28 [-1;0] dB		
Dimensions [L]	Natural colour	Renson Standard WHITE	RAL 9005	RAL 1015
725	46973001	46973002	46973003	46973004
825	46983001	46983002	46983003	46983004
925	46993001	46993002	46993003	46993004

Other colours available upon request



## TECHNICAL DRAWINGS



# INCENDO® 464

Fire-resistant louvre with angled blades, fire-resistance 60 minutes

FIRE-RESIS-  
TANT LOUVRE



## MATERIAL

- Blades filled with intumescent material
- Outer frame in Polystyrene
- Available in RAL 7024 (anthracite grey), RAL 9016 (traffic white) and RAL 9022 (pearl light grey)

## DIMENSIONS

- Built-in depth: 40 mm min.
- Blade pitch: 20 mm
- Maximum dimension: 800 x 400 mm
- Minimum dimensions: 100 x 100 mm
- 464/1: with frame, 464/2: with frame and adjustable counterframe

## FIXING

- With sealant and adhesive neoprene mastic

## TYPICAL APPLICATIONS

- Aesthetic finish, no visible vertical posts
- Tested according to EN1634-1, EN1364-1 and EN1364-2
- Fire resistance EI 60 (Integrity and thermal insulation for 1 hour) according to EN13501-2
- Suitable for installation in a wooden door panel, flexible wall, massive wall, floor or ceiling
- No visual see through

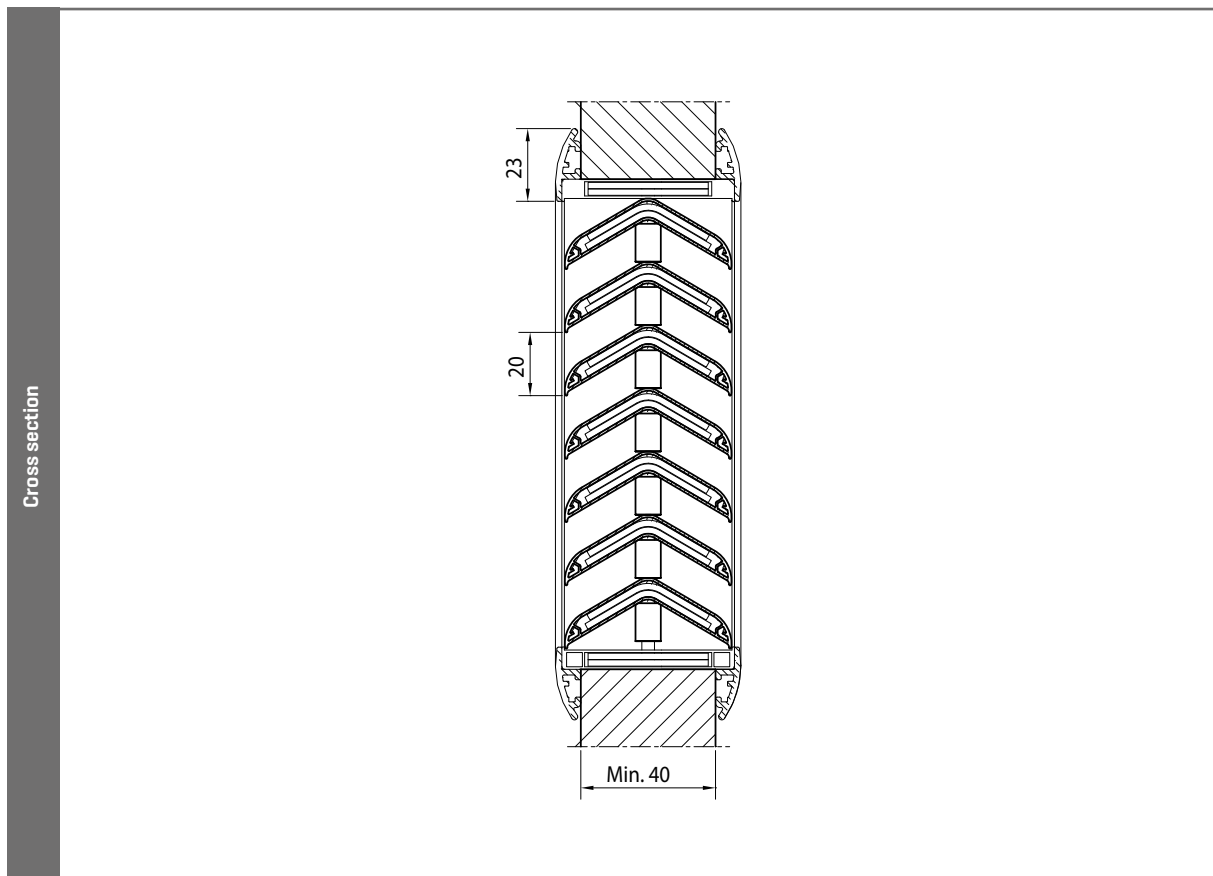
*Remark: avoid contact with water, for indoor use only*

## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		10.27
K-factor [discharge]		10.27
C <sub>e</sub> coefficient		0.312
C <sub>d</sub> coefficient		0.312
Technical data		
Visual free area		61%
Physical free area		51%
IP class		IP2XD
Fire classification		[EN 13501-2]
Large wall area [100 mm]		EI 60 / EW 90 [ve i<->o]
Large floor area [100 mm]		EI 60 [ho i<->o]
Flexible wall [metal stud gypsum plasterboard 100 mm]		EI 60 [ve i<->o]
[Wooden] doorpanel [50 mm]		EI 60 / EW 60 [ve i<->o]
[Wooden] doorpanel [40 mm]		EI 30 / EW 30 [ve i<->o]

## TECHNICAL DRAWINGS



# 465

## Fire-resistant louvre with angled blades, fire-resistance 60 minutes

FIRE-RESIS-  
TANT LOUVRE



### MATERIAL

- Blades filled with intumescent materials (PALUSOL)
- Protection by grey-coloured synthetic sheath
- Outer frame in satin anodised aluminium [20 microns]
- Other frame colours on request.

### DIMENSIONS

- Maximum dimensions: 600 x 300 mm
- Special dimensions on request
- 465/2: door thickness min. 45 mm - max. 55 mm

### PURPOSE

- Ventilation between two adjacent rooms
- In case of fire, cuts off the airflow and creates a firebreak function

### APPLICATIONS

- Fire-resistant constructions
- Fire-resistant conduit
- Fire doors

*Remark: for indoor use only, avoid contact with water*

### FUNCTION

- At a temperature of 120°C, the blades swell to close the vent
- Forms a static fire valve for 60 minutes

### FIXING

- Secure the louvre in the opening
- Fill the gap between the louvre and the door/wall with fire-resistant mortar

### OPTION

- Frame for 55 to 80 mm thickness

### TYPICAL APPLICATIONS

- Fire door apartments

### STOCK MODELS

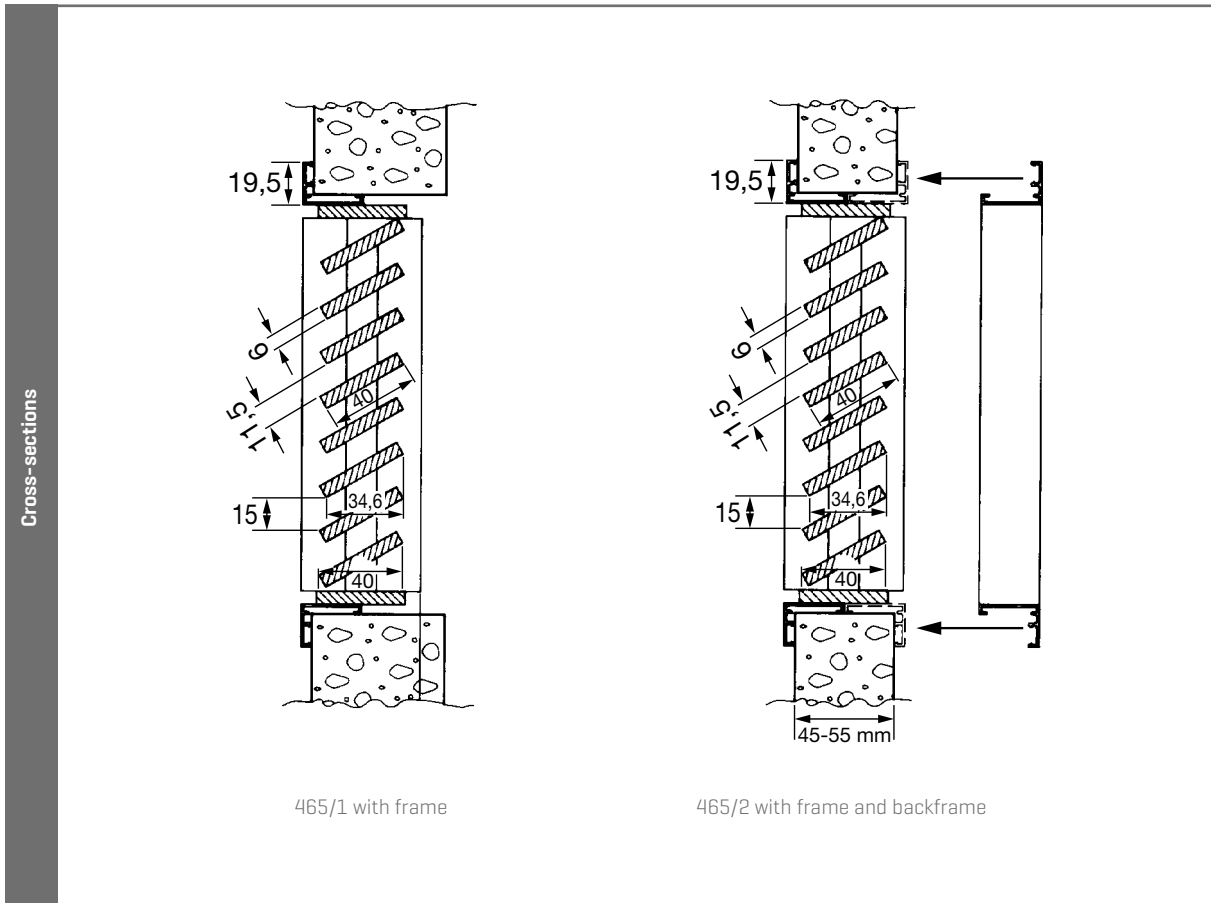
Dimensions (W x H) mm	465/1 (with frame)	465/2 (with frame and backframe)	Airflow at 2 Pa (m <sup>2</sup> /h)
200 x 200	00465122		82
300 x 300	00465133		185
400 x 200	00465142	00465242	164
500 x 200	00465152		205

## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Fire resistance	1 hour Rf
Test report available upon request	
<b>Technical data</b>	
Visual free area	74%
Physical free area	57%

## TECHNICAL DRAWINGS



# 466

## Fire-resistant louvre with horizontal blades

FIRE-RESIS-  
TANT LOUVRE



### MATERIAL

- Blades filled with intumescent materials (PALUSOL)
- Protection by grey-coloured synthetic sheath
- Outer frame in satin anodised aluminium [20 microns]
- Other frame colours on request.

### DIMENSIONS

- Maximum dimensions: 600 x 400 mm
- Dimensions on request
- 466/2: door thickness min. 45 mm - max. 55 mm

### PURPOSE

- At normal temperature, guarantees ventilation between two adjacent rooms
- In case of fire, cuts off the airflow and creates a firebreak function

### APPLICATIONS

- Fire-resistant constructions
- Fire-resistant conduit
- Fire doors

*Remark: for indoor use only, avoid contact with water*

### FUNCTION

- At a temperature of 120°C, the blades swell to close the vent
- Forms a static fire valve for 60 minutes

### FIXING

- Secure the louvre in the opening
- Fill the gap between the louvre and the door/wall with fire-resistant mortar

### OPTION

- Frame for 55 to 80 mm thickness

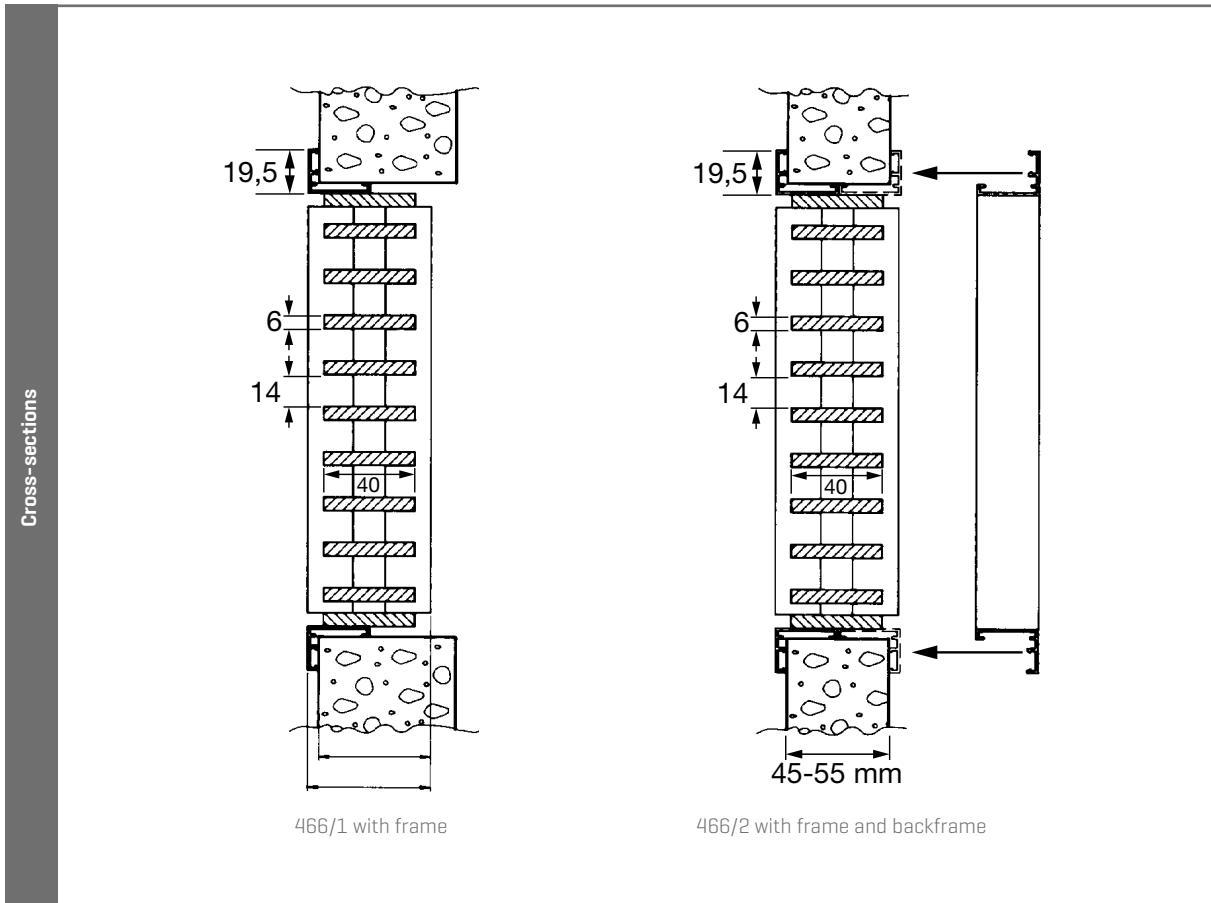


## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Fire resistance	1 hour Rf
Test report available upon request	
<b>Technical data</b>	
Visual free area	70%
Physical free area	70%

## TECHNICAL DRAWINGS



# 467

## Fire-resistant louvre with horizontal blades, in solid concrete wall

FIRE-RESIS-  
TANT LOUVRE



### MATERIAL

- Horizontal blades with plastic housing, filled with intumescent material (PALUSOL)
- Outer frame in HDF
- Colour: grey

### DIMENSIONS

- Depth to fit: 100 mm
- Blade pitch: 18 mm
- Minimum dimensions W x H: 150 x 100 mm
- Maximum dimensions W x H: 1200 x 800 mm

### TARGET

- At normal temperature, guarantees ventilation between two adjacent rooms
- In case of fire, cuts off the airflow and creates a firebreak function

### APPLICATIONS

- The intumescence of the blades cuts everything off as from 100°C.
- The louvre acts as a static fire damper for 120 minutes.

### TESTED ACCORDING TO EN 1364-1

### INSTALLATION

- In solid wall (aerated concrete  $\geq 100$  mm)
- Secure/seal louvre using plaster/Ytocol

### TYPICAL APPLICATIONS

- Fire-resistant constructions

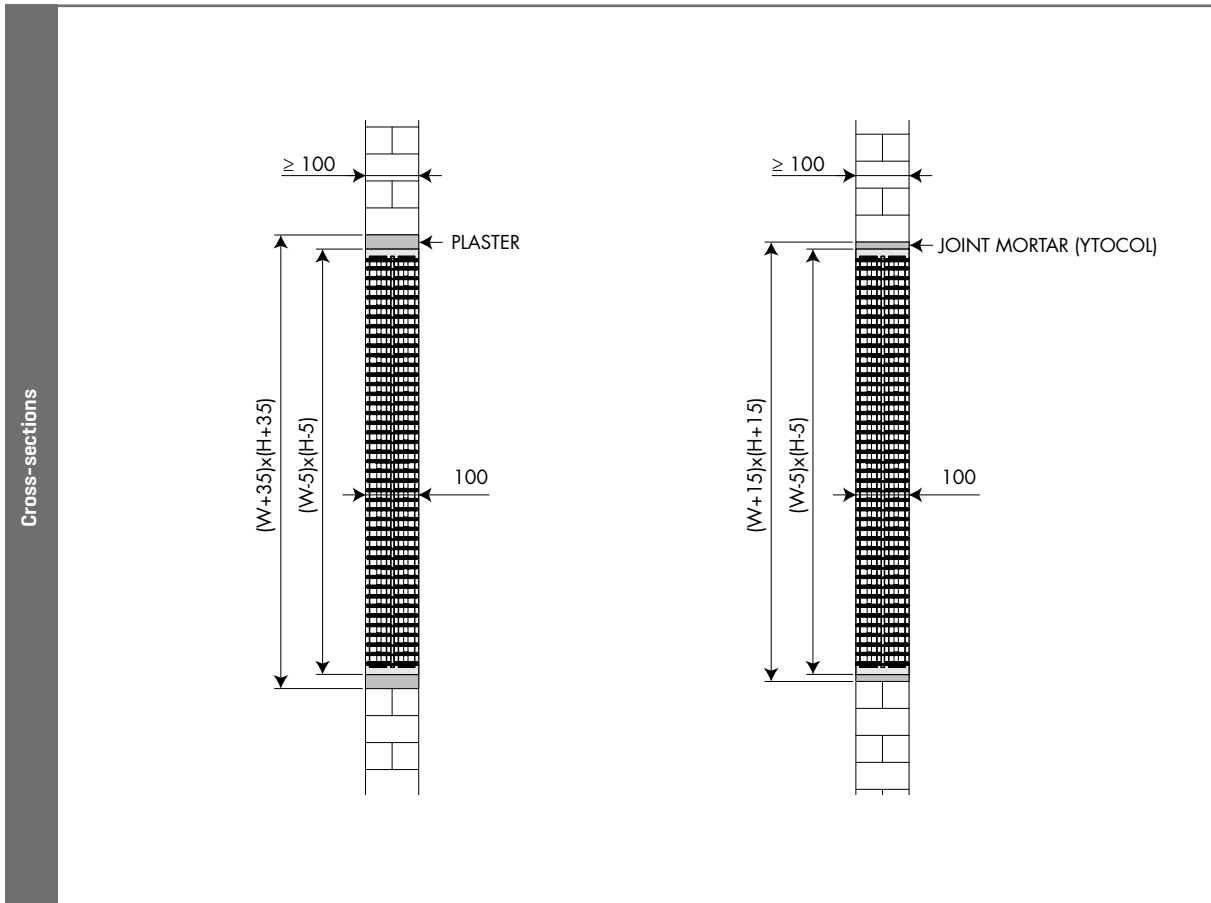
*Note: not for outdoor use; avoid contact with water.*

## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

Airflow		[EN 13030]
K-factor [entry]		4.16
K-factor [discharge]		4.06
C <sub>e</sub> coefficient		0.490
C <sub>d</sub> coefficient		0.496
Technical data		
Visual free area		66.7%
Physical free area		66.7%
Fire classification		[EN 13501-2]
Solid concrete wall (≥ 100 mm)		EI 120 (ve i<->o)

## TECHNICAL DRAWINGS



# 442 - 441 - 4032

## Controllable cavity wall louvres

HIT AND MISS  
LOUVRE

ALUMINIUM



### 442 - Cavity wall ventilator

#### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 insect screen [2.3 x 2.3 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]
- Connecting sleeve made from galvanised steel

#### DIMENSIONS

- Size to fit: 265 x 90 mm [L x H]
- Flange size: 21 mm
- Controllable internal louvre
- Adjustable sleeve for wall thickness of 245 till 400 mm

#### OPTIONS

- Optional sound absorbing material

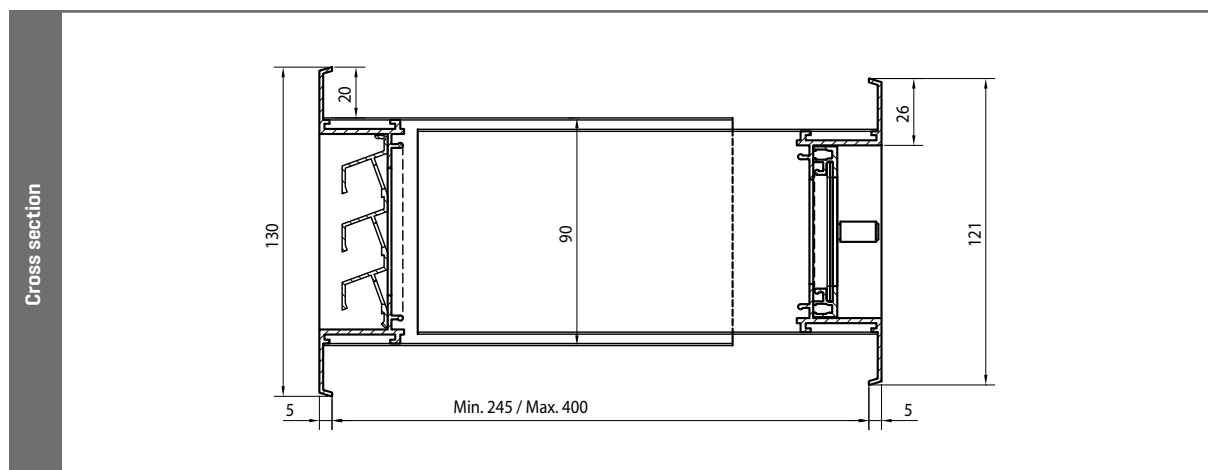
#### FIXING

- Spring clips are included

#### STOCK MODELS

Dimensions (W x H) mm	Natural colour anodised	Renson Standard WHITE	Airway opening in cm <sup>2</sup>	Airflow at 2 Pa [m <sup>3</sup> /h]	Airflow at 20 Pa [m <sup>3</sup> /h]
265 x 90	00044211	00044216	38	15	49.4

### TECHNICAL DRAWINGS



## 441 - Controllable cavity wall louvres Register with frame

### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 insect screen [2.3 x 2.3 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### DIMENSIONS

- Depth to fit: 28.5 mm
- Flange size: 21 mm
- Rotating knob for louvre lengths of 500 mm and above [possibility of pull-cord or rod operation]

### CUSTOMISATION

- Maximum dimensions w x h: 3000 mm x 1074 mm or 1074 mm x 3000 mm
- Possible dimensions w x h: upon request

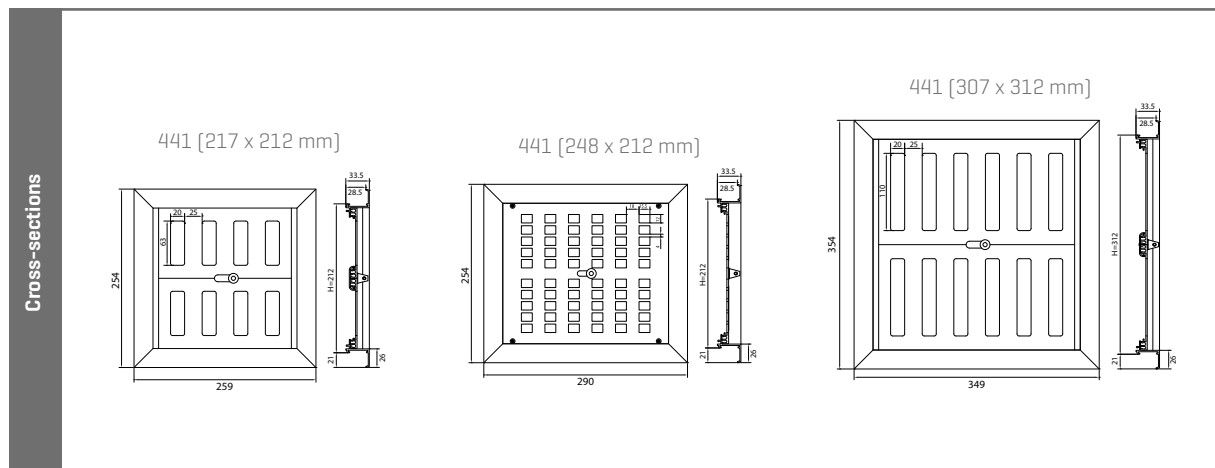
### FIXING

- Spring clips available on request

### STOCK MODELS

Dimensions [W x H] mm	Natural colour anodised	Renson Standard WHITE	Airway opening in cm <sup>2</sup>	Airflow at 2 Pa [m <sup>3</sup> /h]
217 x 212	00000441	00004416	113	45
248 x 212	00044111		140	63.1
307 x 312	00000442	00004426	260	114.7

### TECHNICAL DRAWINGS



HIT AND MISS  
LOUVRE

ALUMINIUM



## 4032 - Controllable cavity wall louvres. Register to fix.

### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]
- Stainless steel 304 insect screen [2.3 x 2.3 mm]
- Finishing: anodized in satin colour [20 micron] or powder-coated in any RAL or Syntha Pulvin colour [40 micron]

### CONTROL

- Slide knob control
- Rotating knob for louvre lengths of 500 mm and above [possibility of pull-cord operation]

### DIMENSIONS

- Standard dimensions : see table stock models
- Made to measure :
  - maximal width : 2000 mm
  - height : on request [The louvre height must fit within 100, 130 or 150 mm modules.]
  - maximal height 1500 mm

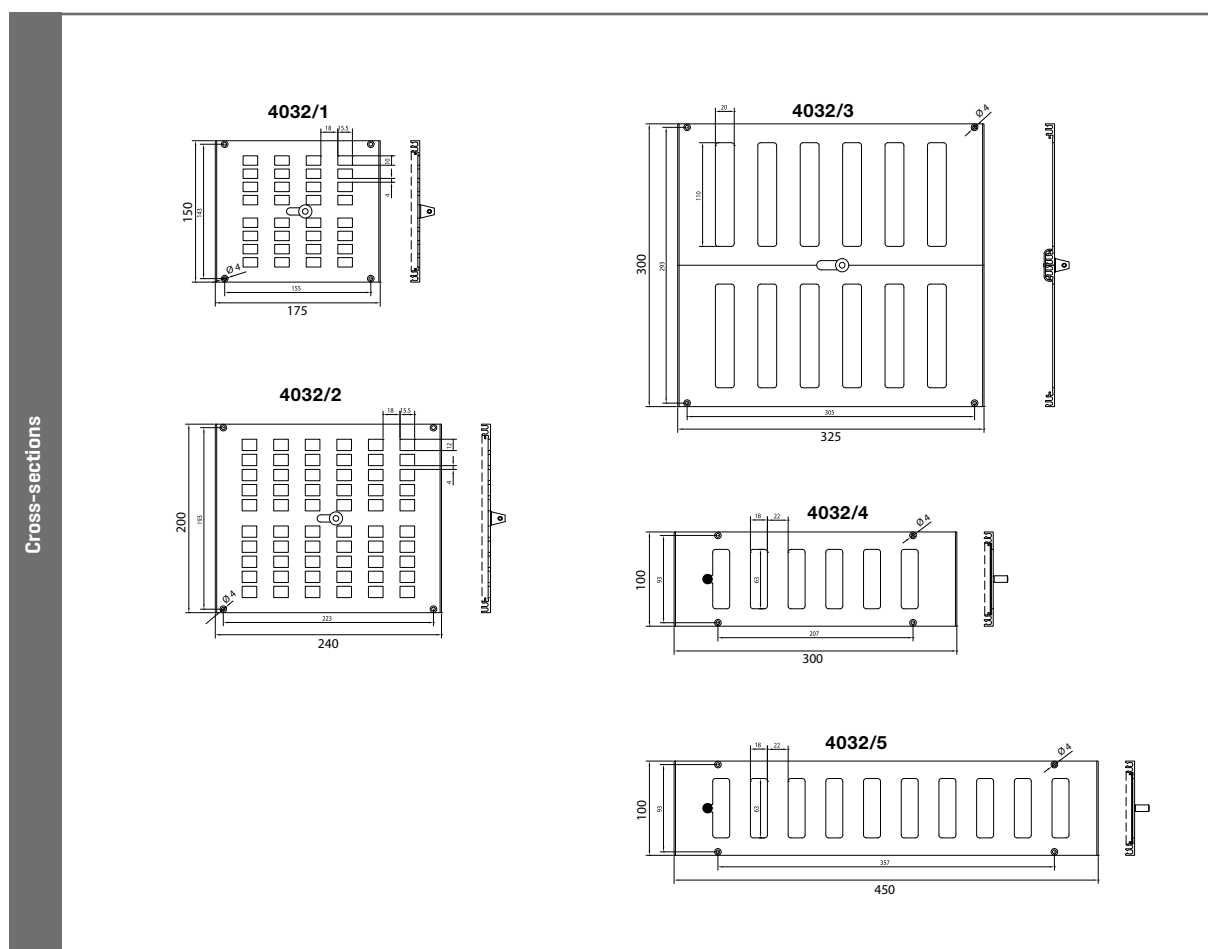
### FIXING

- Screws and plugs are included

## STOCK MODELS

Dimensions (W x H) mm	Natural colour anodised	Renson Standard WHITE	Airway opening in cm <sup>2</sup>	Airflow at 2 Pa (m <sup>3</sup> /h)
4032/1: 175 x 150	00403211	00403216	49	22.1
4032/2: 240 x 200	00403221	00403226	113	51.0
4032/3: 325 x 300	00403231	00403236	260	114.7
4032/4: 300 x 100	00403241	00403246	68	30.0
4032/5: 450 x 100	00403251	00403256	113	49.9

## TECHNICAL DRAWINGS



# XD

## Design extraction louvre

HIT AND MISS  
LOUVRE

DESIGN



### MATERIAL

- Cover plate: aluminium AlMgSi 0.5 [according to EN 12020-2]
- Finishing: powder coating in any RAL or Syntha Pulvin® colour (40 microns)
- Base and sliding part: POM [polyoxymethylene]

### DIMENSIONS

- XD1: 152 x 152 mm
- XD2: 188 x 188 mm
- XD3: 233 x 233 mm
- Depth [in closed position]: 79 mm

### TYPICAL APPLICATIONS

- Aesthetical internal louvre for wall or ceiling





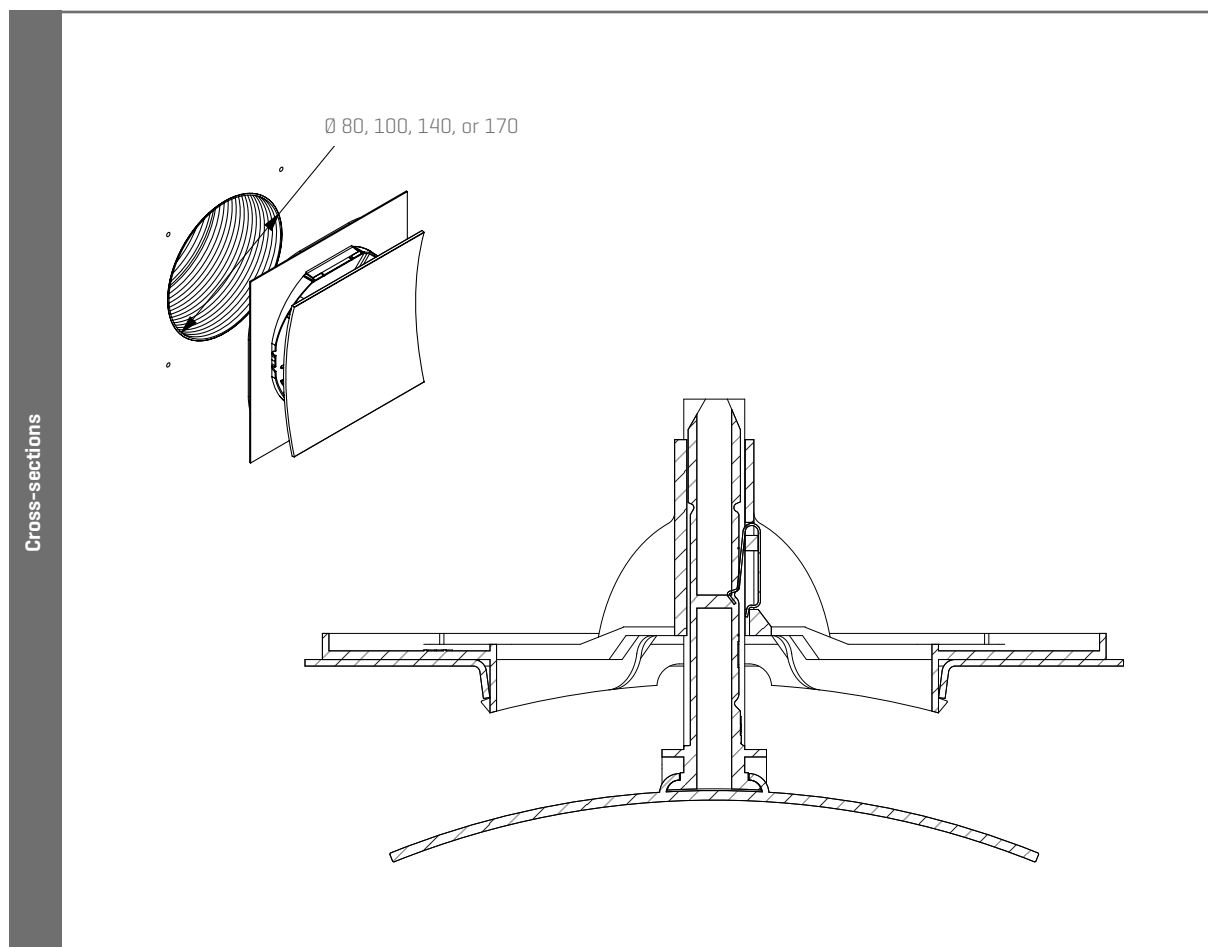
## TECHNICAL SPECIFICATIONS

All properties are valid for the standard version of the Louvre, unless otherwise stated.

	<b>XD1</b>	<b>XD2</b>	<b>XD3</b>
Dimensions [mm]	152 x 152 depth: 79 [closed]	188 x 188 depth: 79 [closed]	233 x 233 depth: 79 [closed]
Use	System C All wet rooms	System A Toilet Closed area ≤ 14 m <sup>2</sup>	System A Openspace kitchen Close area ≤ 14 m <sup>2</sup>
Airflow [EN 13141-1]	Position I: not possible Position II: 22 m <sup>3</sup> /h at 2 Pa	Position I: 39.2 m <sup>3</sup> /h at 2 Pa Position II: 50.4 m <sup>3</sup> /h at 2 Pa	Position I: 63.0 m <sup>3</sup> /h at 2 Pa Position II: 87.1 m <sup>3</sup> /h at 2 Pa
Duct diameter	80 mm (max. ø 140 mm)	100 mm, 140 mm (max. ø 160 mm)	140 mm, 170 mm (max. ø 200 mm)
<b>Colours</b>			
RAL 9006	66015202	66018802	66023302
Renson Standard WHITE	66015205	66018805	66023305

[Other colours available upon request]

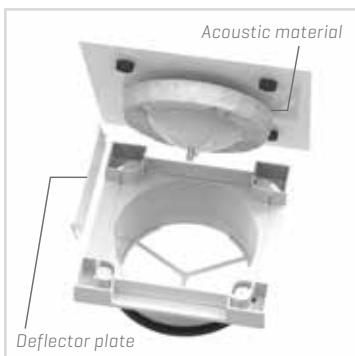
## TECHNICAL DRAWINGS



# SQair

## Extractor vent

### DESIGN



### ADJUSTABLE VENT IN 4 MODELS

- Extractor vent:
  - Deluxe: aluminium front plate (painted RAL 9010)
  - Basic: plastic front plate RAL 9010 (in full)
- Pulse vent:
  - Deluxe: aluminium front plate (painted RAL 9010)
  - Basic: plastic front plate RAL 9010 (in full)

### SURFACE MOUNTING

- Louver base + front plate

### ONLY PROTRUDES 241 MM COMPARED TO THE WALL OR CEILING

- Broader front plate discretely covers the vent opening

### DIRECT CONNECTION TO THE AIR DUCT SYSTEM

- Ø 125 mm
- Integrated rubber seal air-tight connection

### FRONT PLATE

- Deluxe: attached to the louvre base using magnets
- Basic: clicks into the louvre base
- Easy disassembly for cleaning
- Thanks to the lock nut, the settings for the vent are maintained during cleaning

### PULSE VENT IS FITTED WITH ACOUSTIC MATERIAL

- Prevents distorted sound at the vent

### DELUXE PULSE VENT IS FITTED WITH 2 DEFLECTOR PLATES

- Two of the four vent openings can be closed using deflector plates  
E.g.: if the vent is placed close to a wall, then this side can be closed off to prevent transfer of dirt/dust (will impact the airflow)

### PACKAGING

- ART. no.:
  - 76050400 Deluxe pulse
  - 76050403 Basic pulse
  - 76050401 Deluxe extraction
  - 76050404 Basic extraction
- Dimensions: 200 x 190 x 85 mm

## TECHNICAL SPECIFICATIONS

	Deluxe	Basic
Front plate	Aluminium	Plastic [ASA]
Front plate dimensions	180 x 180 mm	170 x 170 mm
Louvre base dimensions	150 x 150 mm	150 x 150 mm
Colour	RAL 9010	RAL 9010
Fixation	Magnets	Click system
Paintable	Yes	-
Acoustic material	Yes [pulse]	Yes [pulse]
Deflector plates	2 pieces [pulse]	-
Deflector plates dimensions	92 x 20 mm	-

## EXTRACTION

Q [m³/h]	100% open		66% open		33% open	
	dP [Pa]	LwA [dB(A)]	dP [Pa]	LwA [dB(A)]	dP [Pa]	LwA [dB(A)]
30	2	15.0	3	14.8	14	17.9
50	6	16.9	10	20.0	40	30.2
60	8	20.3	15	24.6	56	34.7
75	13	25.5	23	31.4	82	40.5

## PULSE WITHOUT ACOUSTIC MATERIAL

Q [m³/h]	100% open		66% open		33% open	
	dP [Pa]	LwA [dB(A)]	dP [Pa]	LwA [dB(A)]	dP [Pa]	LwA [dB(A)]
30	3	15.0	5	15.1	14	24.5
40	6	16.3	8	18.8	25	33.5
50	8	17.5	12	22.5	37	39.9
60	11	19.3	17	28.0	54	45.5
75	16	24.5	26	35.0	83	51.5

## PULSE WITH ACOUSTIC MATERIAL

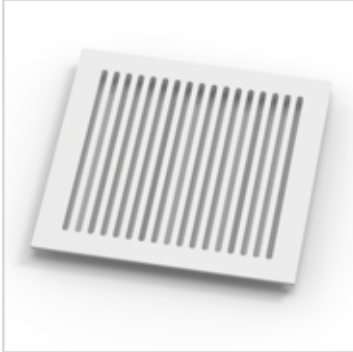
Q [m³/h]	100% open		66% open		33% open	
	dP [Pa]	LwA [dB(A)]	dP [Pa]	LwA [dB(A)]	dP [Pa]	LwA [dB(A)]
30	9	16.0	19	17.6	58	21.0
50	19	23.0	41	26.0	131	35.4
60	25	26.6	55	29.6	180	40.9
75	37	32.3	78	35.0	263	46.3

# PURO - SQUARE - DIAGONAL

Design extraction louvres

HIT AND MISS  
LOUVRE

DESIGN



## Puro

### TECHNICAL SPECIFICATIONS

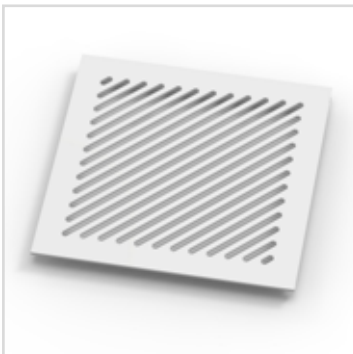
Type	Dimensions [mm]	White
XD25-50 PURO	130 x 130, Ø 80	66031630
XD75 PURO	170 x 170, Ø 125	66031631



## Square

### TECHNICAL SPECIFICATIONS

Type	Dimensions [mm]	White
XD25-50 SQUARE	130 x 130, Ø 80	66031632
XD75 SQUARE	170 x 170, Ø 125	66031633



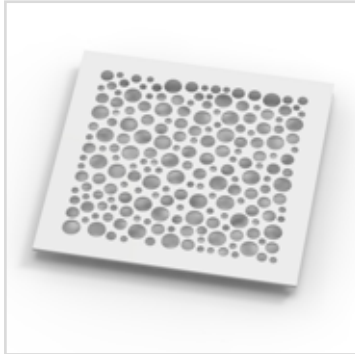
## Diagonal

### TECHNICAL SPECIFICATIONS

Type	Dimensions [mm]	White
XD25-50 DIAGONAL	130 x 130, Ø 80	66031634
XD75 DIAGONAL	170 x 170, Ø 125	66031635

# AQUA - ARTIST - DECO

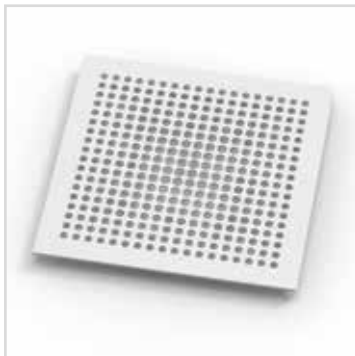
Design extraction louvres



## Aqua

### TECHNICAL SPECIFICATIONS

Type	Dimensions (mm)	White
XD25-50 AQUA	130 x 130, Ø 80	66031636
XD75 AQUA	170 x 170, Ø 125	66031637



## Artist

### TECHNICAL SPECIFICATIONS

Type	Dimensions (mm)	White
XD25-50 ARTIST	130 x 130, Ø 80	66031638
XD75 ARTIST	170 x 170, Ø 125	66031639



## Deco

### TECHNICAL SPECIFICATIONS

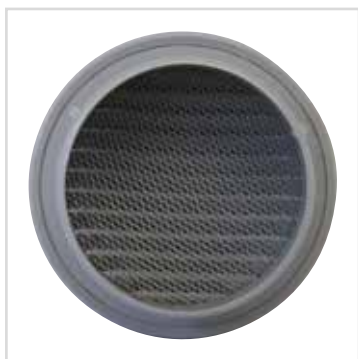
Type	Dimensions (mm)	White
XD25-50 DECO	130 x 130, Ø 80	66031642
XD75 DECO	170 x 170, Ø 125	66031643

# 435R

## Circular built-in punched grille

PUNCHED  
GRILLE

ALUMINIUM



### MATERIAL

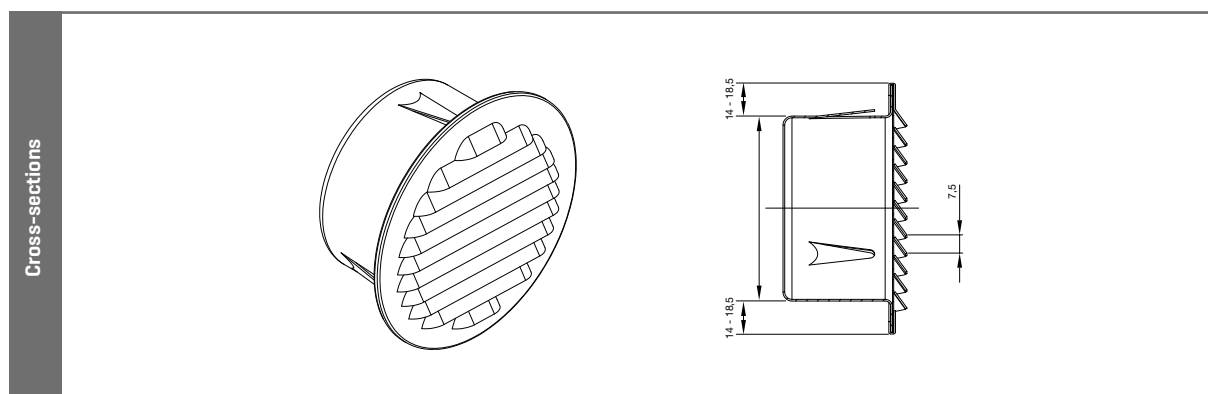
- Made from punched aluminium sheet
- Finishing: powder-coated in white [RAL 9010], brown [RAL 8019] and aluminium [RAL 9006] colours
- Insect mesh included

### STOCK MODELS

Diameter mm	RAL 9006	Renson Standard WHITE	RAL 8019	STR 7016	STR 9005	Airway opening in cm <sup>2</sup>	Airflow at 2 Pa [m <sup>3</sup> /h]
ø 80	04352001	04352002	04352003	04350803	04352009	27	8.3
ø 100	04352004	04352005	04352006	04351003	04352169	51	15.2
ø 120	04351151	04351156	04351157	04351203	04351159	75	23.6
ø 150	04351451	04351456	04351457	04351503	04352179	119	35.2
ø 190	04351901	04351906	04351907	04351903	04351909	204	53.1
ø 250	04352451	04352456	04352457	04352453	04352459	339	74.0

Other colours are available upon request; only for large quantities.

### TECHNICAL DRAWINGS





Punched grille 435R

# 436 - 437

## Rectangular punched grilles

PUNCHED  
GRILLE

ALUMINIUM



### 436 - Punched grille

#### MATERIAL

- Punched aluminium sheet
- 436: without insect mesh
- 436-M: with insect mesh

Remark: standard dimensions only, not possible made-to-measure.

#### FIXING

- Screw-mounted [screws and plugs not provided]

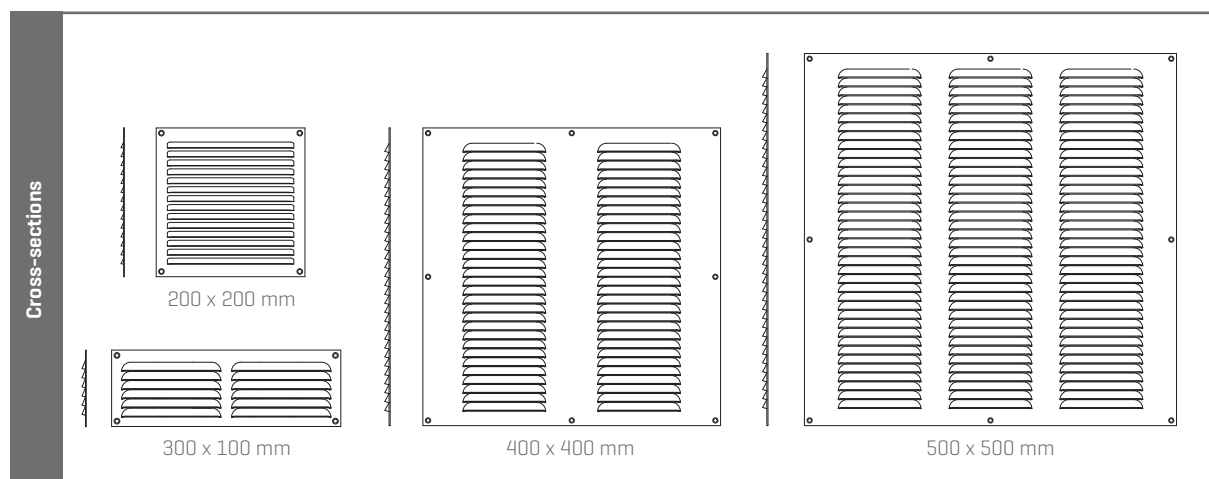
#### TECHNICAL SPECIFICATIONS

- Physical free area: 28%

#### STOCK MODELS

(W x H) mm	F1	Renson Standard WHITE	RAL 8019	STR 7016	STR 9005	Airflow at 2 Pa (m <sup>3</sup> /h)
150 x 150	41501501	41501506	41501507	41501503	41501510	16
150 x 200	41502001	41502006	41502007			21.9
200 x 100	42001001	42001006	42001007	42001003	42001009	12
200 x 200	42002001	42002006	42002007	42002003	42002010	22.1
200 x 250	42002501	42002506	42002507	42002503	42002509	36.7
250 x 100	42501001	42501006	42501007			18.5
250 x 250	42502501	42502506	42502507			46.6
300 x 100	43001001	43001006	43001007			20.2
300 x 300	43003001	43003006	43003007	43003003	43003010	73.5
400 x 100	44001001	44001006	44001007			28.8
400 x 400	44004001	44004006	44004007			86.4
500 x 500	45005001	45005006	45005007			125.9

#### TECHNICAL DRAWINGS





## 437 - Punched grille with frame

### MATERIAL

- Punched aluminium sheet with frame
- With insect mesh

Remark: standard dimensions only, not possible made-to-measure.

### FIXING

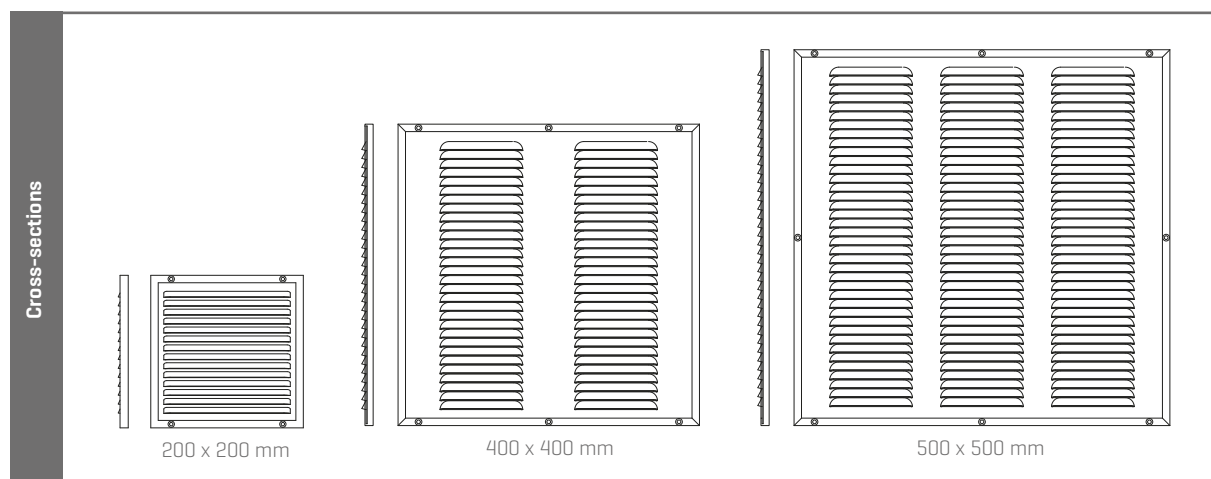
- Screw-mounted [screws and plugs not provided]

### STOCK MODELS

[W x H] mm	F1	Renson Standard WHITE	RAL 8019	STR 7016	STR 9005	Airflow at 2 Pa [m <sup>3</sup> /h]
150 x 150	61501501	61501506	61501507	61501503	61501500	16
150 x 200	61502001	61502006	61502007			21.9
200 x 100	62001001	62001006	62001007			12
200 x 200	62002001	62002006	62002007	62002003	62002000	22.1
200 x 250	62002501	62002506	62002507			36.7
250 x 100	62501001	62501006	62501007			18.5
250 x 250	62502501	62502506	62502507			46.6
300 x 100	63001001	63001006	63001007			20.2
300 x 300	63003001	63003006	63003007			73.5
400 x 100	64001001	64001006	64001007			28.8
400 x 400	64004001	64004006	64004007			86.4
500 x 500	65005001	65005006	65005007			125.9



### TECHNICAL DRAWINGS



# 438 - 439

## Rectangular punched grilles

PUNCHED  
GRILLE

STAINLESS  
STEEL



### 438 - Punched grille, stainless steel

#### MATERIAL

- Punched stainless steel sheet

*Remark: standard dimensions only, not possible made-to-measure.*

#### FIXING

- Screw-mounted [screws and plugs are not provided]

#### STOCK MODELS

[W x H] mm	Stainless steel	Airflow at 2 Pa (m <sup>3</sup> /h)
200 x 100	82001001	12.3
250 x 100	82501001	16.2
300 x 100	83001001	18.4
400 x 100	84001001	23.1
150 x 150	81501501	15.8
150 x 200	81502001	18.8
200 x 200	82002001	21.3
200 x 250	82002501	29.7
250 x 250	82502501	40.7
300 x 300	83003001	56.9

## 439 - Punched grille, edge-raised

### MATERIAL

- Punched aluminium sheet

Remark: standard dimensions only, not possible made-to-measure.

### FIXING

- Screw-mounted [screws and plugs are not provided]



### STOCK MODELS

[W x H] mm	F1	Renson Standard WHITE	RAL 8019	Airflow at 2 Pa (m <sup>3</sup> /h)
155 x 155	21551551	21551556	21551557	15.9
245 x 195	22451951	22451956	22451957	31.4
215 x 150	22151501	22151506	22151507	20.3

# 381

## Built-in ventilation grille

VENTILATION  
STRIP

ALUMINIUM



### MATERIAL

- Made from aluminium sections: AlMgSi 0.5 [according to EN 12020-2]

### TYPICAL APPLICATIONS

- Kitchens, refrigerators, counters
- Packaging quantity: 10 pieces*

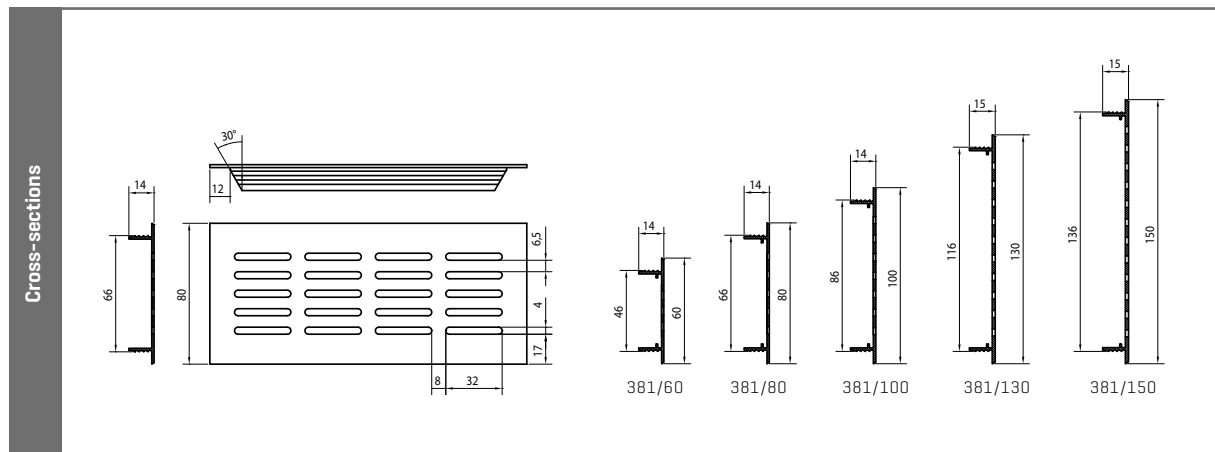



## STOCK MODELS

Dimensions (W x H) mm	Natural-coloured anodised	Renson Standard WHITE	RAL 8022	STR 9005	Air flow opening at cm <sup>2</sup>	Airflow at 2 Pa (m <sup>3</sup> /h)
400 x 60 mm	03810041	03810046	03810047		44	17.0
500 x 60 mm	03810051	03810056	03810057		59	22.8
2000 x 60 mm	03810201	03810206			244	94.4
300 x 80 mm	03811031	03811036	03811037		43	17.6
400 x 80 mm	03811041	03811046	03811047	03811042	56	22.4
500 x 80 mm	03811051	03811056	03811057	03811059	74	29.6
600 x 80 mm	03811061	03811066			87	33.6
1000 x 80 mm	03811101	03811106			149	57.6
2000 x 80 mm	03811201				305	117.9
300 x 100 mm	03812031	03812036			61	23.6
400 x 100 mm	03812041	03812046	03812047		78	30.2
500 x 100 mm	03812051	03812056	03812057		104	40.2
600 x 100 mm	03812061	03812066	03812067		122	47.2
1000 x 100 mm	03812101	03812106			209	80.8
2000 x 100 mm	03812201	03812206			427	165.1
500 x 130 mm	03813051	03813056			149	57.6
1000 x 130 mm	03813101	03813106			298	115.2
2000 x 130 mm	03813201	03813206			610	235.9
500 x 150 mm	03815051	03815056			179	69.2
2000 x 150 mm	03815201	03815206			732	283.1

Other colours are available upon request; only for large quantities.

## TECHNICAL DRAWINGS





Get inspired in our showroom  
EXIT5 at Waregem along the E17

E X I T 5

EXPERIENCE, INNOVATION & TECHNOLOGY @ RENSON

## WE'D BE HAPPY TO HELP YOU!

Our head office - the elegant building designed by the late architect Jo Crepain, which has been the visiting card of our company for many years now - is now being renovated. The bottom part of the building now has an imposing glass façade. Behind the façade, there is a new 'Customer Centre' with reception rooms for customers, conference rooms, and an auditorium, where large groups of more than 300 people can participate in presentations. In case of smaller groups, this auditorium can also be divided into 3 separate rooms.

The highlight of the project is the new showroom of 1250 m<sup>2</sup>, where professional customers as well as private individuals can be accommodated. Apart from a showroom for Renson®'s various innovative solutions and concepts, it is planned to make this room a knowledge centre, where customers can walk in and ask questions about ventilation, heating, sun protection, ventilative cooling, acoustics, interior, etc., .... In short: everything to provide the home with all the necessary comfort. There is also the possibility to view the solutions in practice in show houses located nearby.

*For more information about the network of Renson® ambassadors, please visit our website at: [www.renson.eu](http://www.renson.eu)*

# RENSON®: YOUR PARTNER IN VENTILATION, SUN PROTECTION, AND OUTDOOR CONCEPTS

- **Creating healthy spaces**

With experience dating back to 1909, we develop energy-efficient total solutions that provide healthy and table indoor environments. Our remarkable head office, built according to the Healthy Building Concept, perfectly reflects our corporate mission.

- **No speed limit on innovation**

A multidisciplinary team of more than 90 R&D employees continuously optimises our products and develops innovative total concepts.

- **Strong in communication**

Contact with the customer is of the utmost importance. Our own exterior sales team, with more than 100 members of staff worldwide and a strong international distribution network, is available to advise you on-site. EXIT 5 in Waregem also gives you the opportunity of personally experiencing our products and provides continuous training to our installers.

- **A reliable partner in business**

Thanks to our environmentally friendly and modern production facilities [including automatic powder-coating installation, anodisation unit, PVC injection moulding, mould-making], with a total surface area of 95,000 m<sup>2</sup>, we can always guarantee optimal quality and service to our customers.





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