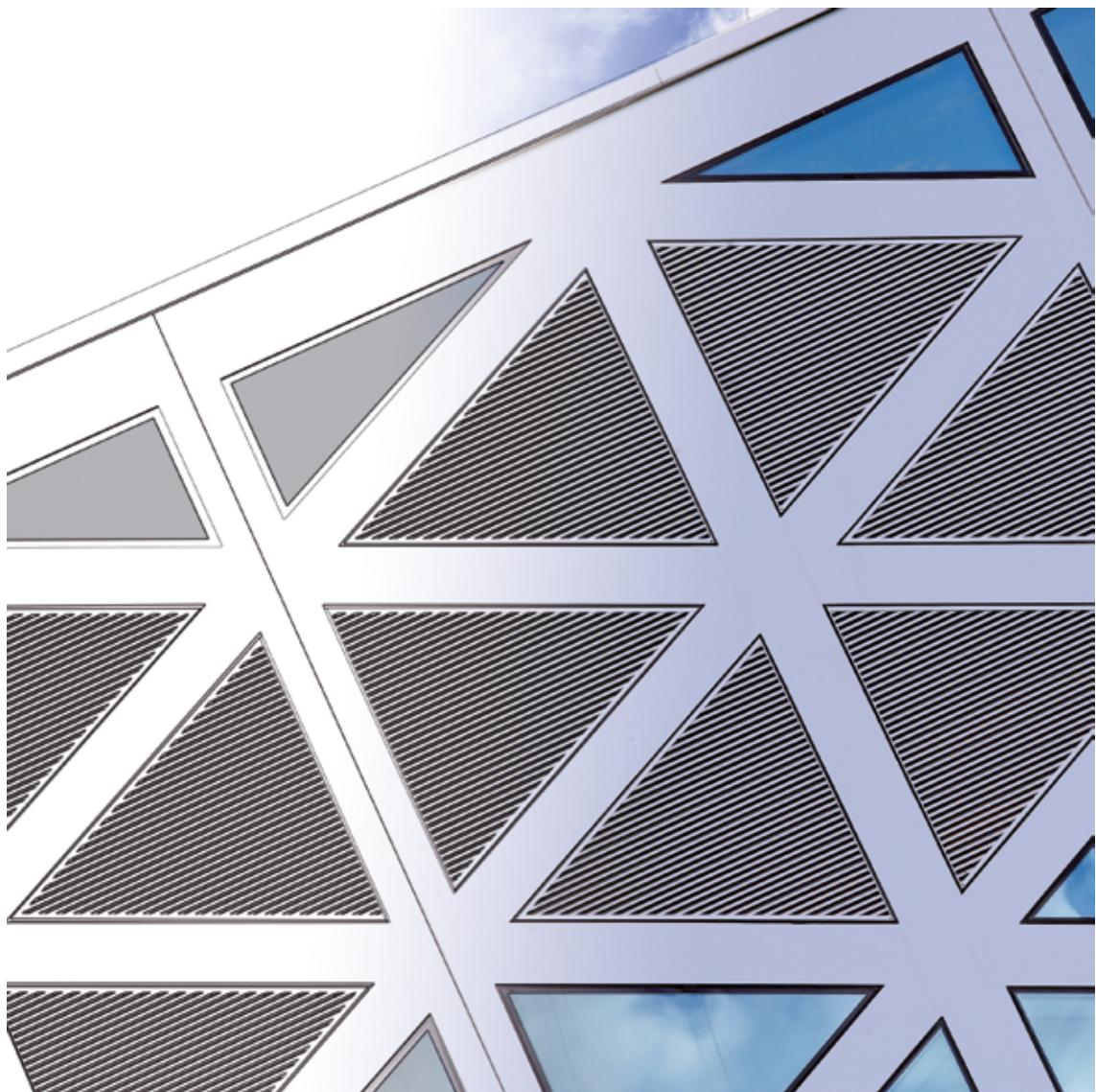


# LOUVRES





# 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.

- **Anodizing:** Our louvers can be anodized to look natural, with a 20-micron layer.

**Powder coating:** Our louvers are available with powder coating in all possible RAL colours, with a layer thickness of 60-80 µm. There should be a pre-treatment, depending on the environment of application.

- Seaside Quality A Pre-treatment

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**

The louvre panels and grills are available as standard in the following colours:

- STR 7016 [anthracite grey] TIGER 029/71289
- BEL 9010 [standard Renson® white] AXALTA AE90019148021
- EUR 9010 [cream white] AXALTA AE70019100125
- RAL 9016 [traffic white] AXALTA AE70019101525

- **Gloss**

Powdercoating available in:

- RAL: gloss of 70%
- MAT: gloss of 30%.

## MAINTENANCE

The only maintenance required is cleaning the louvre.

## WARRANTY

Renson® NV provides the installers with a warranty valid on the goods delivered to them for 2 years from the date of production covering all defects that may occur during normal use and maintenance of the delivered goods. The guarantee for colourfast of the aluminium powder-coated parts is 10 years. A warranty of 5 years applies to the gloss of the coated profiles.

## 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.

# SERVICE

## How to select the correct louvre for your application?

The tools and data below provide you an overview of the available services to select the correct louvre and required information.

### WEBSITE WWW.RENSON.EU

On the website **www.renson.eu** you can find an overview of all louvres including technical drawings, leaflets and product summaries.

The screenshot shows the RENSON website's product search interface. On the left, there is a sidebar with filters for 'Ventilatie' (Ventilation), 'Luchting', 'Outdoor', and 'Gevelbekleding' (Façade cladding). Under 'Filter', there are two sections: 'Type ventilatie' (Ventilation type) with options for 'Mechanische ventilatie' (Mechanical ventilation), 'Raamverluchtingen' (Window ventilation), 'DIY Roosters' (DIY louvres) (selected), and 'Inductieve Roosters' (Inductive louvres); and 'Type product' (Product type) with several other categories. The main area is titled 'Zoekresultaten' (Search results) and shows three products: '438' (left), '438' (middle), and '461AK Silendo' (right). Each product card displays a small image, the product name, a brief description, and a 'Lees meer...' (Read more...) button.

### SELECTION AND CALCULATION SOFTWARE

Selection and calculation of the right louvre making use of the louvre software available on [www.rensonlouvres.eu](http://www.rensonlouvres.eu)

In order to calculate a made-to-measure louvre, please provide at least two of the following parameters:

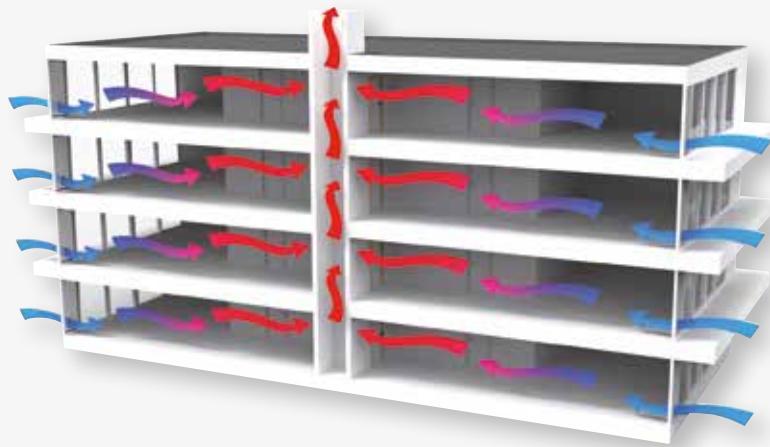
- Surface of the opening
- Pressure drop over the louvre in Pa
- Required airflow in m<sup>3</sup>/h

The screenshot shows the RENSON software's main interface. It features a sidebar with various menu items like 'Home', 'Producten', 'Totaalconcepten', 'Referenties', 'Verdelers', and 'Nieuws'. The main area has tabs for 'Present' and 'RENSON ROOSTERS'. A large table lists different louvre models with columns for 'Model nummer' (Model number), 'Afmetingen' (Dimensions), 'Drukvermindering' (Pressure drop), 'Aanvoer luchttemperatuur' (Supply air temperature), and 'Aanvoer luchtvochtigheid' (Supply air humidity). Some rows in the table are highlighted in blue, red, or green.

## Specific louvre characteristics

### NIGHTCOOLING

By ventilating with large amounts of natural fresh air through the building at night, the indoor climate and building mass will cool down. In daytime the indoor temperature remains stable, as the building mass can heat up. Nightcooling can be achieved by placing specific louvres at the suction and discharge side. Type 432 is advised for suction, type 440 for discharge.



### TEST REPORTS

Louvres with specific requirements have been tested according to EN norms. Test reports for IP-classification, burglar resistance, acoustic damping and weatherability are available on request.



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



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

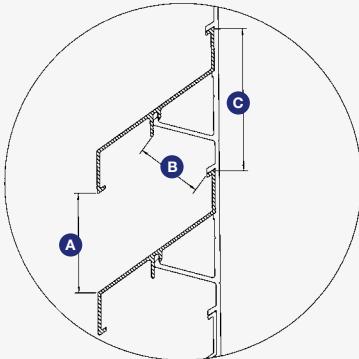


**Waterproof:** louvre with high classification (see p. 14)



**Stick-proof:** this louvre has been IP certified (EN 60529)

# DEFINITIONS



## 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 louvre characteristics can be calculated making use of free software on the website [www.rensonlouvres.eu](http://www.rensonlouvres.eu).

## AIRFLOW

- **K-factor** = a value describing aerodynamic resistance to airflow. Contrary to the free area, this value describes the link between the airflow through the louvre and the pressure drop over it.
- **C<sub>e</sub>** = *entry loss coefficient* = a value describing the aerodynamic channelling of the airflow on entry. This value represents the ratio of the actual airflow to the theoretical airflow.
- **C<sub>d</sub>** = *discharge loss coefficient* = a value describing the aerodynamic channelling of the airflow on discharge. This value represents the ratio of the actual airflow to the theoretical airflow.

## ACOUSTIC TERMS

- **dB[a]** = the *decibel* [dB] in this brochure is used to characterize the noise reduction of a louvre. The A-weight [dB(a)] shows that the acoustic tests have been taken out according to the sensitivity of the human sound spectrum.
- **D<sub>n,e,w</sub>** = weighted element-normalized sound level difference, used to characterise a single element like a louvre.
- **R<sub>w</sub> [C;Ctr]** = weighted sound reduction index, used to characterise glazing, brick walls, wall louvres, etc.
- **C** = spectrum correction term for pink noise, always added to R<sub>w</sub> or D<sub>n,e,w</sub> when the source of the noise is, for example, fast-moving traffic.
- **C<sub>tr</sub>** = spectrum correction term for traffic noise, always added to R<sub>w</sub> or D<sub>n,e,w</sub> when the source of the noise is, for example, urban traffic.
- **Frequency** = pitch expressed in Hertz [Hz], or the number of vibrations per second.

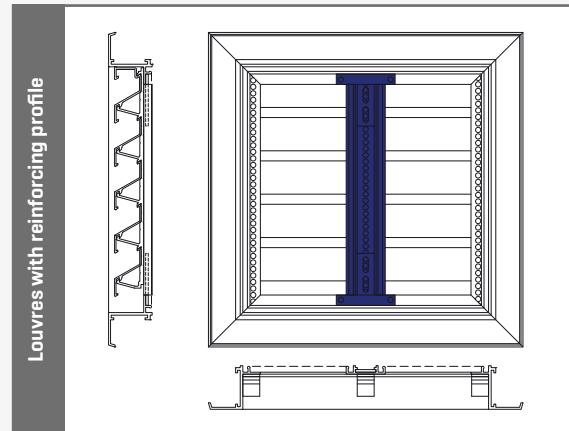
**Remark:** In order to select the correct louvre for your application please refer to local building regulations.

## TECHNICAL TERMS

- **IP-class** = international protection rating, protection rate to classify intruding objects and water penetration. The distance to the electrical installation is measured from the outside surface of the louvre. The IP-class of a louvre is determined according to EN 60529.

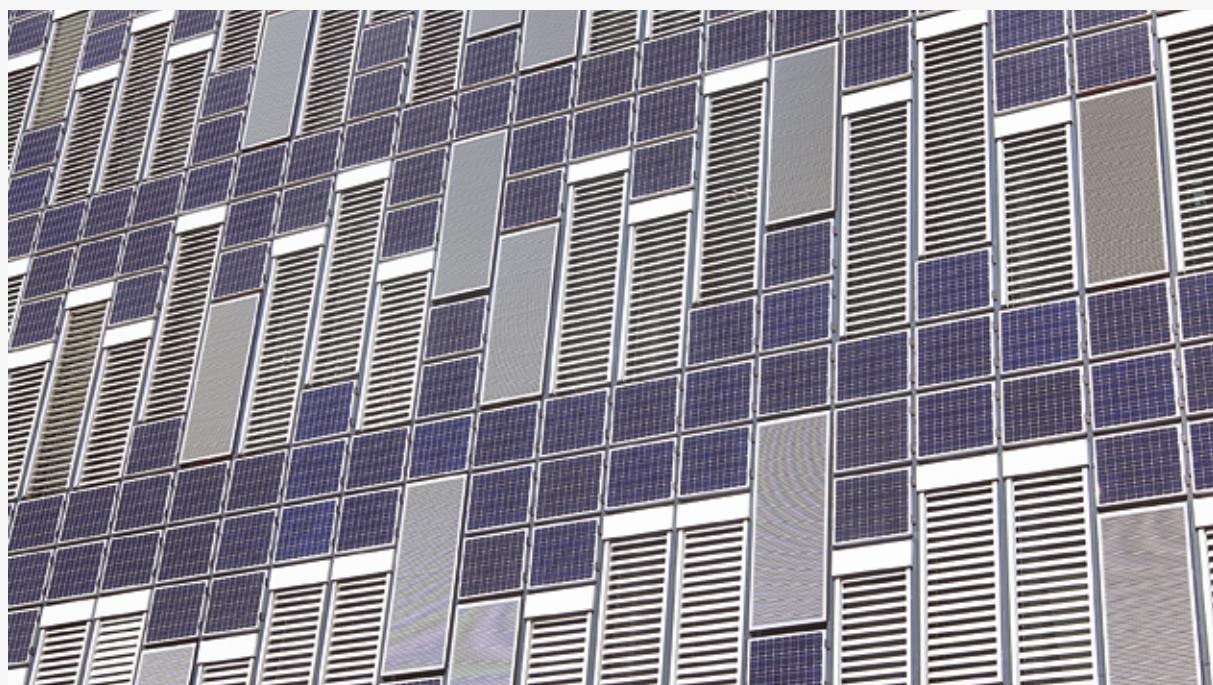
## LOUVRE WITH STRENGTHENING SUPPORT

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



## BUILDING TECHNICAL TERMS

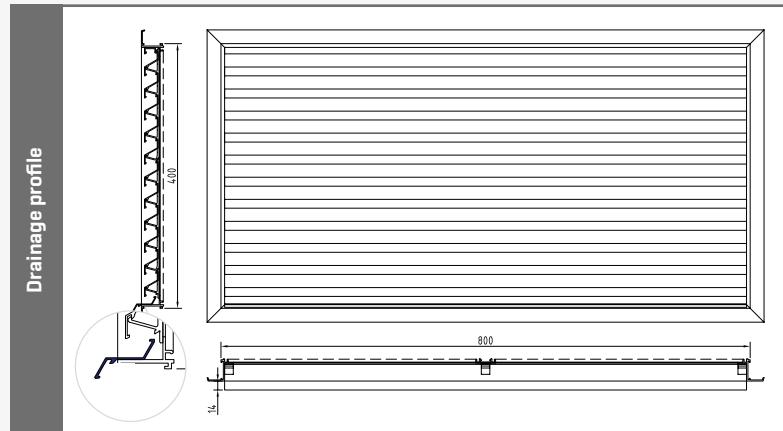
- **Wall anchor** = aluminium bar used to mount and fix louvre to the wall.
- **Flange** = part of the frame profile visible from the front.
- **Aluminium extrusion** = technique to shape an aluminium element by pressing it through a mold.



# OPTIONS

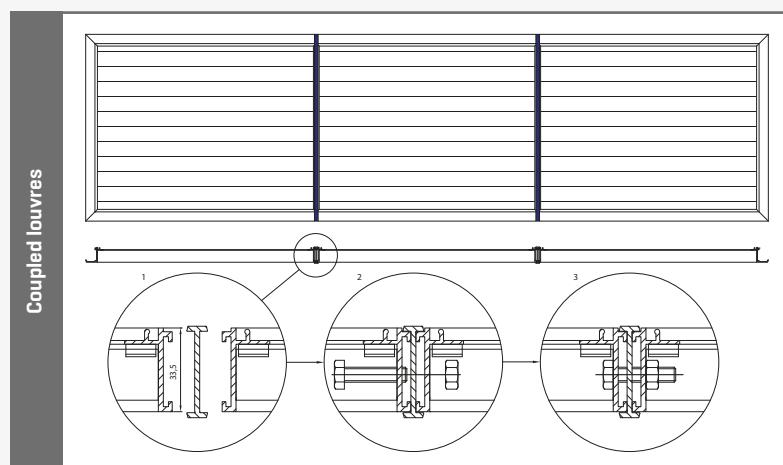
## DRAINAGE PROFILE

This profile is designed for all types of aluminium rectangular wall louvres.



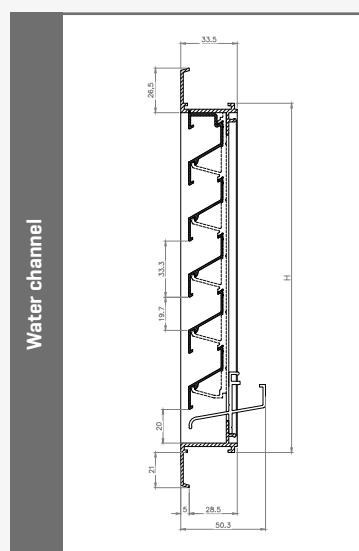
## COUPLED LOUVRES

- Louvres can be coupled both vertically and horizontally
- Standard vertical



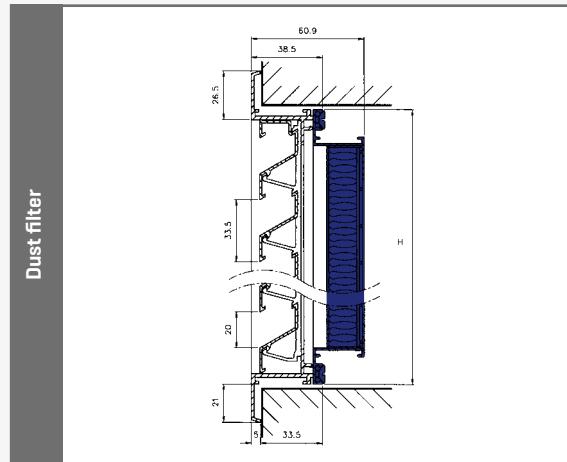
## WATER CHANNEL

- This profile is designed for many louver types
- It collects any water infiltration and channels it outside



## DUST FILTER

- This profile is designed for all louvre types
- Equipped with dust filter class G4



## REMOVABLE INSECT MESH 401

### Material

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

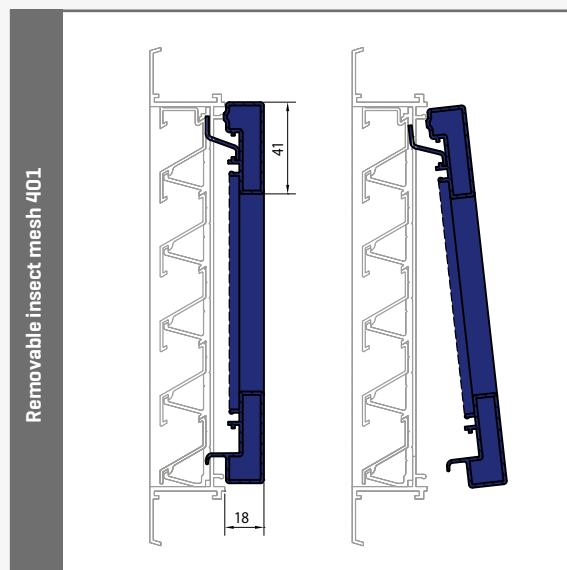
### Dimensions

- Minimum dimensions: 190 x 190 mm
- Maximum dimensions: 1500 x 1200 mm

### Advantages

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

Remark: not applicable to surface-mounted louvres



# WATERTIGHTNESS TESTS

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.

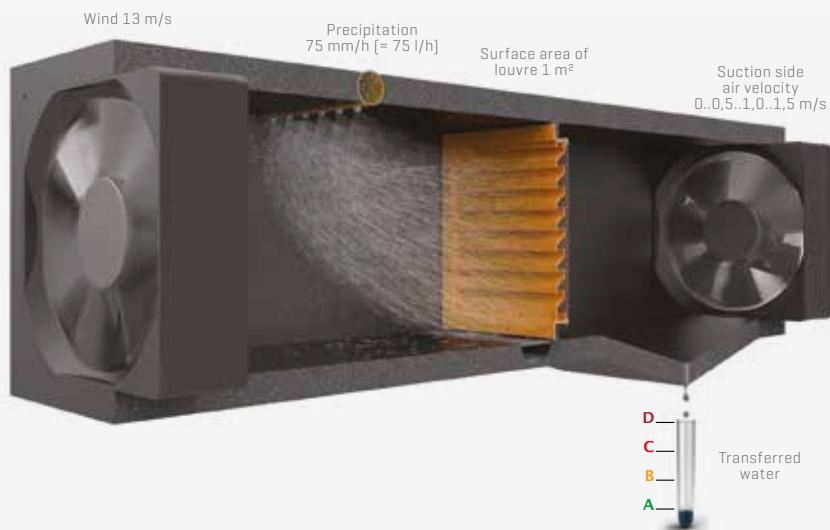
**Attention:** The "air speed" reference always indicates the air speed at the suction side. If a louvre is assigned to a watertightness, the class suction side air speed has to be indicated. The outside wind speed is fixed to 13m/s and is therefore never mentioned.

**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.



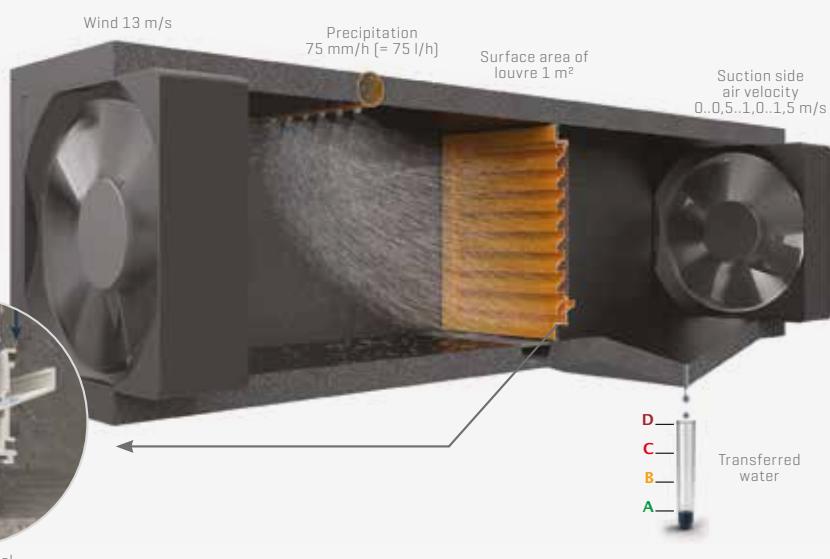
## WITHOUT WATER CHANNEL

Test on a standard type 411 louvre



## WITH WATER CHANNEL

Test on a type 411 louvre with water channel



| Type of louvre            | Insect screen [mm]              | Suction air speed [m/s]                                     | Class                                     | % watertightness  |  | Air resistance class                      |
|---------------------------|---------------------------------|---|---|---|--|---|
|                           |                                 |   |   | %   | Class  |   |
| Very good rain protection | A                               | 100 - 99 %  |   |   |  | $C_e > 0.4: 1$                            |
| Good rain protection      | B                               | 98,9 - 95 %   |   |   |  | $0.3 < C_e < 0.4: 2$                      |
| Average rain protection   | C                               | 94,9 - 80 %   |   |   |  | $C_e: 0.2 - 0.299: 3$                     |
| Low rain protection       | D                               | < 80 %  |   |   |  | $C_e < 0.199: 4$                          |
| Type of louvre            | Insect screen [mm]              | Suction air speed [m/s]                                     | Tested with water channel Class           | Tested without water channel Class                                  | Suction air resistance ( $C_e$ -coefficient) |   |
| 450 L.050W                | 2,3 x 2,3 mm                    | 0,0<br>0,5<br>1,0<br>1,5<br>2,0<br>2,5<br>3,0               | A<br>A<br>A<br>A<br>A<br>A<br>A           | 100<br>100<br>100<br>100<br>99,9<br>99,9<br>99,2                    |  | 2<br>2<br>2<br>2<br>2<br>2<br>2           |
|                           |                                 | Standard equipped with water channel                        |   |   |  |   |
| 450V L.050WV              | 2,3 x 2,3 mm                    | 0,0<br>0,5<br>1,0<br>1,5<br>2,0<br>2,5<br>3,0<br>3,5<br>4,0 | A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>A | 100<br>99,9<br>99,9<br>99,9<br>99,5<br>99,6<br>99,7<br>99,5<br>99,1 |  | 2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2 |
|                           |                                 | Standard equipped with water channel                        |   |   |  |   |
| 475/475GL L.075W          | 2,3 x 2,3 mm                    | 0,0<br>0,5<br>1,0<br>1,5<br>2,0                             | A<br>B<br>B<br>C<br>D                     | 99,2<br>97,8<br>95,9<br>90,9<br>< 80                                |  | 2<br>2<br>2<br>2<br>2                     |
|                           |                                 | Standard equipped with water channel                        |   |   |  |   |
| 452V L.066V               | 2,3 x 2,3 mm                    | 0,0<br>0,5<br>1,0<br>1,5<br>2,0<br>2,5                      | A<br>A<br>A<br>C<br>D                     | 100<br>100<br>100<br>99,7<br>80,2<br>< 80                           |  | 4<br>4<br>4<br>4<br>4                     |
|                           |                                 | Standard equipped with water channel                        |   |   |  |   |
| 452 L.066 L.066V          | 6 x 6 mm                        | 0,0<br>0,5<br>1,0<br>1,5<br>2,0                             | A<br>A<br>A<br>B<br>D                     | 100<br>99,9<br>91,6<br>95<br>< 80                                   |  | 4<br>4<br>4<br>4<br>4                     |
|                           |                                 | Option water channel  |   |   |  |   |
| 491/494 L.033.08          | 6 x 6 mm                        | 0,0<br>0,5<br>1,0<br>1,5                                    | A<br>A<br>C<br>D                          | 100<br>99,7<br>91,6<br>< 80   |  | 4<br>4<br>4<br>4                          |
|                           |                                 | Option water channel  |   |   |  |   |
| 422/428 L.033V            | 6 x 6 mm                        | 0,0<br>0,5<br>1,0<br>1,5<br>2,0                             | A<br>A<br>B<br>C<br>D                     | 99,9<br>99,5<br>96,9<br>87,9<br>< 80                                | A<br>B<br>C<br>D                             | 99,3<br>98,1<br>93,4<br>87,5<br>< 80      |
|                           |                                 | Option water channel  |   |   |  |   |
| 411/414/431 L.033.01      | 2,3 x 2,3 mm                    | 0,0<br>0,5<br>1,0<br>1,5                                    | A<br>A<br>B<br>D                          | 99,6<br>99,1<br>97,3<br>< 80  | B<br>-                                       | 96,7<br>-                                 |
|                           |                                 | Option water channel  |   |   |  |   |
| 451 L.066.01              | 2,3 x 2,3 mm                    | 0,0<br>0,5<br>1,0<br>1,5<br>2,0                             |   |   | C<br>C<br>C<br>D                             | 91<br>89,3<br>87,1<br>81,6<br>< 80        |
|                           |                                 | Option water channel  |   |   |  |   |
| 451 L.066.01              | 6 x 6 mm standard               | 0,0<br>0,5<br>1,0<br>1,5<br>2,0                             |   |   | B<br>C<br>C<br>C<br>D                        | 95,5<br>92,9<br>90,8<br>82,8<br>< 80      |
|                           |                                 | Option water channel  |   |   |  |   |
| 421/424 L.050.00          | 2,3 x 2,3 mm standard           | 0,0<br>0,5<br>1,0<br>1,5<br>2,0                             | B<br>C<br>C<br>C<br>D                     | 95<br>92,2<br>89,8<br>84,5<br>< 80                                  | C<br>-                                       | 90,6<br>87,7                              |
|                           |                                 | Option water channel  |   |   |  |   |
| 425 L.095.01              | 2,3 x 2,3 mm                    | 0,0<br>0,5<br>1,0<br>1,5<br>2,0                             | B<br>C<br>C<br>C<br>D                     | 96,6<br>93,9<br>90,7<br>83,5<br>< 80                                | C<br>D                                       | 82<br>< 80                                |
|                           |                                 | Option water channel  |   |   |  |   |
| 425 L.095.01              | 6 x 6 mm standard               | 0,0<br>0,5<br>1,0<br>1,5                                    | C<br>C<br>C<br>D                          | 91,3<br>88,3<br>85,1<br>< 80  | C<br>C<br>D                                  | 93,3<br>87,7<br>82,7<br>< 80              |
|                           |                                 | Option water channel  |   |   |  |   |
| 481/484                   | 2,3 x 2,3 mm with water channel | 0,0<br>0,5<br>1,0<br>1,5<br>2,0                             | B<br>C<br>C<br>C<br>D                     | 96<br>94,3<br>92,2<br>88,2<br>< 80                                  |  | 2<br>2<br>2<br>2<br>2                     |
|                           |                                 | Option water channel  |   |   |  |   |
| 412/415 V20.blade         | 2,3 x 2,3 mm                    | 0,0<br>0,5<br>1,0<br>1,5<br>2<br>2,5                        | A<br>A<br>A<br>B<br>C<br>D                | 99,9<br>99,7<br>99,2<br>95,6<br>87,5<br>< 80                        |  | 4<br>4<br>4<br>4<br>4<br>4                |
|                           |                                 | Option water channel  |   |   |  |   |
| 412/415 V20.blade         | 6 x 6 mm standard               | 0,0<br>0,5<br>1,0   |   |   | C<br>D                                       | 90,4<br>81,6<br>< 80                      |
|                           |                                 | Option water channel  |   |   |  |   |
| 446/150 L.150ACS blade    | 2,3 x 2,3 mm with water channel | 0,0<br>0,5<br>1,0<br>1,5                                    | A<br>B<br>C<br>D                          | 99,3<br>96,6<br>91,3<br>< 80  |  | 4<br>4<br>4<br>4                          |
|                           |                                 | Option water channel  |   |   |  |   |

# OVERVIEW OF THE RANGE



381 - Built-in ventilation grille



16

461AK Silendo® - Acoustic door grille



431 - Surface-mounted wall louvre



# OVERVIEW OF THE RANGE

| Blade type<br>Linus | Louvre type                             | Product type | Family      |                    | Airflow         |                    |                            |                            | Page |
|---------------------|---|--------------|-------------|--------------------|-----------------|--------------------|----------------------------|----------------------------|------|
|                     |   |              | Blade pitch | Physical free area | K-factor supply | K-factor discharge | C <sub>e</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                      | 90   |
| V20 blade           | Controllable glazed-in louvres          | 415VA        | 20          | n/a                | n/a             | n/a                | n/a                        | n/a                        | 94   |
| V20 blade           | Round glazed-in louvre                  | 415R         | 20          | 39                 | 34.6            | 34.6               | 0.170                      | 0.170                      | 92   |
| L.033.01            | Built-in wall louvre                    | 411          | 33.3        | 45                 | 26.30           | 25.51              | 0.195                      | 0.198                      | 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        | 45                 | 26.30           | 25.51              | 0.195                      | 0.198                      | 82   |
| L.033.07            | Round glazed-in louvre                  | 414R         | 33.3        | 40.5               | 23.56           | 25.51              | 0.206                      | 0.198                      | 84   |
| L.033.01            | Glazed-in louvre                        | 414/D        | 33.3        | n/a                | n/a             | n/a                | n/a                        | n/a                        | 86   |
| L.033.01            | Controllable glazed-in louvres          | 414/VA       | 33.3        | n/a                | n/a             | n/a                | n/a                        | n/a                        | 86   |
| L.033.01            | Glazed-in louvre Thermally broken frame | 414THF       | 33.3        | 45                 | 26.30           | 25.51              | 0.195                      | 0.198                      | 88   |
| L.033.01            | Surface-mounted louvre                  | 431          | 33.3        | 45                 | 26.30           | 25.51              | 0.195                      | 0.198                      | 74   |
| L.033.07            | Surface-mounted louvre                  | 431R         | 33.3        | 40.5               | 23.56           | 25.51              | 0.206                      | 0.198                      | 76   |
| L.033.01            | Surface-mounted louvre                  | 432          | 33.3        | 45                 | 26.30           | 25.51              | 0.195                      | 0.198                      | 78   |
| L.033.01            | Louvre box                              | 440/11       | 33.3        | 45                 | 26.30           | 25.51              | 0.195                      | 0.198                      | 132  |
| L.033.08            | Built-in wall louvre                    | 491          | 33.3        | 26                 | 123.5           | 118.1              | 0.09                       | 0.092                      | 72   |
| L.033.08            | Glazed-in louvre                        | 494          | 33.3        | 26                 | 123.5           | 118.1              | 0.09                       | 0.092                      | 104  |
| 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                      | 98   |
| 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                      | 132  |
| L.050.00            | Glazed-in louvre                        | 424          | 50          | 49                 | 13.42           | 11.73              | 0.273                      | 0.292                      | 96   |
| L.050HF             | Built-in wall louvre                    | 481          | 50          | 60                 | 9.59            | 10.01              | 0.323                      | 0.316                      | 52   |
| L.050HF             | Glazed-in louvre                        | 484          | 50          | 60                 | 9.59            | 10.01              | 0.323                      | 0.316                      | 102  |
| L.050W              | Built-in wall louvre                    | 450          | 50          | 57                 | 10.47           | 16.52              | 0.309                      | 0.246                      | 60   |
| L.050W              | Built-in wall louvre                    | 450V         | 50          | 57                 | 10.75           | 16.52              | 0.305                      | 0.246                      | 62   |
| L.060HF             | Built-in wall louvre                    | 480          | 60          | 76                 | 5.03            | 4.96               | 0.446                      | 0.449                      | 50   |
| L.060HF             | Glazed-in louvre                        | 483          | 60          | 76                 | 5.03            | 4.96               | 0.446                      | 0.449                      | 100  |
| L.066.01            | Built-in wall louvre                    | 451          | 66          | 49                 | 14.24           | 11.77              | 0.265                      | 0.291                      | 42   |
| L.066V              | Built-in wall louvre                    | 452          | 66          | 41                 | 66.1            | 79.7               | 0.123                      | 0.112                      | 64   |
| L.066V              | Built-in wall louvre                    | 452V         | 66          | 41                 | 60.1            | 79.9               | 0.129                      | 0.114                      | 66   |
| L.065AL             | Built-in wall louvre                    | 453          | 65          | 55                 | 13.92           | 17.22              | 0.268                      | 0.241                      | 44   |
| L.075HF             | Built-in wall louvre                    | 457          | 75          | 52                 | 13,13           | 14,24              | 0,276                      | 0,265                      | 46   |
| Vertical blade      | Built-in wall louvre                    | 468SA        | 85          | 29                 | 115.62          | 115.62             | 0.093                      | 0.093                      | 48   |
| L.075W              | Built-in wall louvre                    | 475          | 75          | 53                 | 10.89           | 10.41              | 0.303                      | 0.310                      | 68   |
| L.075W              | Glazed-in louvre                        | 475GL        | 75          | 53                 | 10.89           | 10.41              | 0.303                      | 0.310                      | 70   |

Remark: test results according to louvres including mesh.

| <b>Blade type<br/>Linus</b> | <b>Louvre type</b>           | <b>Family</b>       |                    |                           | <b>Airflow</b>         |                           |                                  |                                  | <b>Page</b> |
|-----------------------------|------------------------------|---------------------|--------------------|---------------------------|------------------------|---------------------------|----------------------------------|----------------------------------|-------------|
|                             |                              | <b>Product type</b> | <b>Blade pitch</b> | <b>Physical free area</b> | <b>K-factor supply</b> | <b>K-factor discharge</b> | <b>C<sub>e</sub> coefficient</b> | <b>C<sub>d</sub> coefficient</b> |             |
| L.095.01                    | Built-in wall louvre         | 425                 | 95                 | 55                        | 12.40                  | 11.65                     | 0.284                            | 0.293                            | 38          |
| L.095.01                    | Glazed-in louvre             | 425GL               | 95                 | 55                        | 12.40                  | 11.65                     | 0.284                            | 0.293                            | 106         |
| Movable blade               | Built-in wall louvre         | 427                 | 100                | 53                        | 11.41                  | 11.65                     | 0.296                            | 0.293                            | 40          |
| Movable blade               | Glazed-in louvre             | 427GL               | 100                | 53                        | 11.41                  | 11.65                     | 0.296                            | 0.293                            | 108         |
| L.060AC                     | Acoustic louvre              | 445/86              | 60                 | 34                        | 9.22                   | 13.29                     | 0.329                            | 0.274                            | 110         |
| L.150ACS.01                 | Acoustic louvre              | 446/150             | 150                | 34.3                      | 38.46                  | 34.48                     | 0.161                            | 0.169                            | 112         |
| L.150ACL.01                 | Acoustic louvre              | 446/225             | 150                | 34.3                      | 37.3                   | 41.9                      | 0.164                            | 0.15                             | 114         |
| L.150ACS.01                 | Acoustic louvre              | 446/300             | 150                | 34.3                      | 45.93                  | 45.93                     | 0.148                            | 0.148                            | 116         |
| L.150ACS.01                 | Acoustic louvre              | 447/150             | 170                | 37                        | 25.46                  | 25.15                     | 0.198                            | 0.200                            | 118         |
| L.150ACL.01                 | Acoustic louvre              | 447/225             | 170                | 37                        | 28.58                  | 30.88                     | 0.187                            | 0.180                            | 120         |
| Acoustic                    | Acoustic louvre              | 468AK               | 85                 | 29                        | 86.85                  | 89.35                     | 0.107                            | 0.106                            | 144         |
| 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                              | 134         |
| Floor blade                 | Floor grille                 | 371                 | 20.5               | 61                        | n/a                    | n/a                       | n/a                              | n/a                              | 136         |
| Strips                      | Ventilation grille           | 381                 | n/a                | 80                        | n/a                    | n/a                       | n/a                              | n/a                              | 176         |
| Linear blade                | Linear bar grille            | 392                 | 13                 | 76                        | n/a                    | n/a                       | n/a                              | n/a                              | 138         |
| Linear blade                | Linear bar grille            | 394                 | 16.5               | 59                        | n/a                    | n/a                       | n/a                              | n/a                              | 140         |
| Punched                     | Punched grille               | 435R                | n/a                | n/a                       | n/a                    | n/a                       | n/a                              | n/a                              | 170         |
| Sliding blade               | Controllable internal louvre | 4032                | n/a                | n/a                       | n/a                    | n/a                       | n/a                              | n/a                              | 162         |
| Sliding blade               | Controllable internal louvre | 441                 | n/a                | n/a                       | n/a                    | n/a                       | n/a                              | n/a                              | 161         |
| Sliding blade               | Controllable internal louvre | 442                 | n/a                | n/a                       | n/a                    | n/a                       | n/a                              | n/a                              | 160         |
| Door blade                  | Door grille                  | 461                 | 20                 | 39                        | 33.8                   | 33.8                      | 0.172                            | 0.172                            | 142         |
| Extractor                   | Surface-mounted louvre       | 433                 | 37 or 99           | n/a                       | n/a                    | n/a                       | n/a                              | n/a                              | 80          |
| Door blade                  | Door grille                  | 469 Invisido        | n/a                | n/a                       | 17.03                  | 17.03                     | 0.24                             | 0.24                             | 150         |
| Door blade                  | Door grille                  | 461AK Silendo       | n/a                | 27                        | 6.13                   | 6.13                      | 0.40                             | 0.40                             | 148         |
| Burglar resistance blade    | Burglar resistance louvre    | 421RC2              | 50                 | 43                        | 13.82                  | 12.85                     | 0.269                            | 0.279                            | 122         |
| Burglar resistance blade    | Burglar resistance louvre    | 421RC3              | 50                 | 43                        | 13.82                  | 12.85                     | 0.269                            | 0.279                            | 128         |
| Burglar resistance blade    | Burglar resistance louvre    | 424RC2              | 50                 | 43                        | 13.82                  | 12.85                     | 0.269                            | 0.279                            | 124         |
| L.033.07                    | Burglar resistance louvre    | 431RC2              | 33.3               | 40.5                      | 23.56                  | 25.51                     | 0.206                            | 0.198                            | 126         |
| Burglar resistance blade    | Burglar resistance louvre    | 423RC4              | 50                 | 22                        | 27.06                  | 27.28                     | 0.193                            | 0.192                            | 130         |
| Fire blade                  | Fire-resistant louvre        | 464 Incendo         | 20                 | 51                        | 10.27                  | 10.27                     | 0.312                            | 0.312                            | 152         |
| Fire blade                  | Fire-resistant louvre        | 465                 | 17.5               | 57                        | 8.16                   | 8.16                      | 0.350                            | 0.350                            | 154         |
| Fire blade                  | Fire-resistant louvre        | 466                 | 20                 | 70                        | 6.80                   | 6.80                      | 0.383                            | 0.383                            | 156         |
| Fire blade                  | Fire-resistant louvre        | 467                 | 18                 | 66.7                      | 4.16                   | 4.06                      | 0.490                            | 0.496                            | 158         |
| Galvanised blade            | Built-in wall louvre         | 511                 | 33.3               | 43                        | 92.13                  | 84.73                     | 0.104                            | 0.109                            | 54          |
| Galvanised blade            | Built-in wall louvre         | 521                 | 50                 | 54                        | 14.91                  | 16.00                     | 0.259                            | 0.250                            | 56          |
| Stainless blade             | Built-in wall louvre         | 621                 | 50                 | 54                        | 14.91                  | 16.00                     | 0.259                            | 0.250                            | 58          |

# PRODUCTS



414 - Glazed-in louvre



20

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. 12]

- 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. 82]
- 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



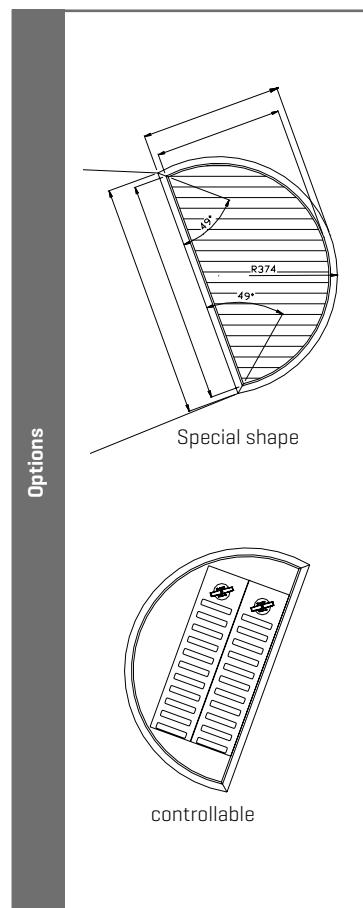
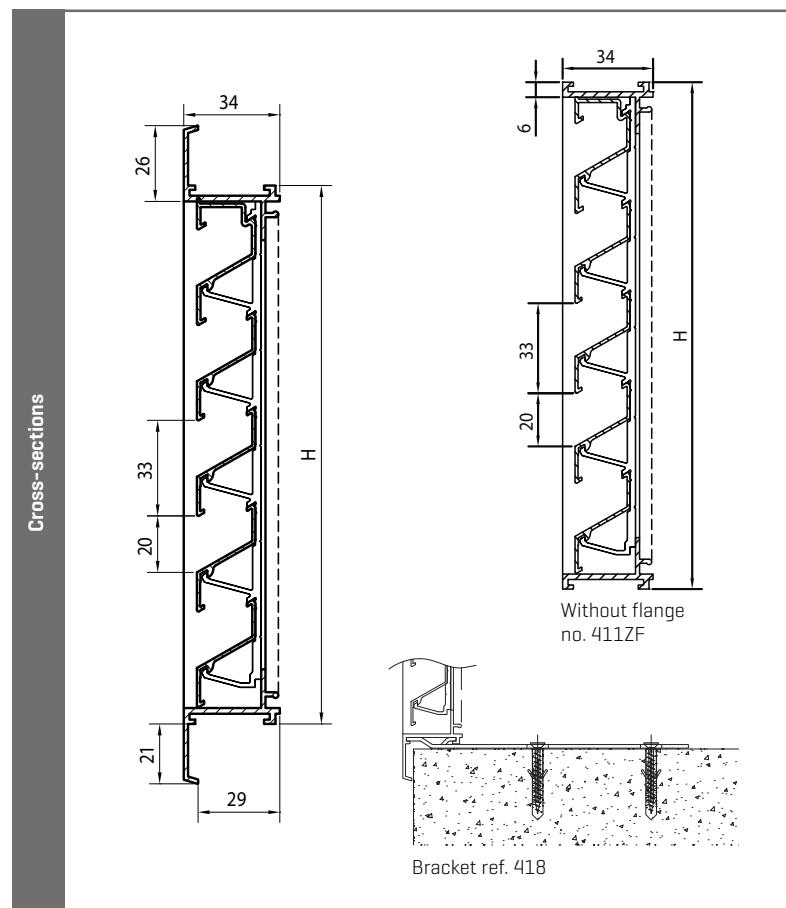
## TECHNICAL SPECIFICATIONS

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

| Weatherability   |  | [EN 13030]   |
|--|--|--------------|
| Class [details see p. 14]  |  | A4 [0.5 m/s] |
| Airflow  |  | [EN 13030]   |
| K-factor [entry]   |  | 26.30        |
| K-factor [discharge]   |  | 25.51        |
| C <sub>e</sub> coefficient   |  | 0.195        |
| C <sub>d</sub> coefficient   |  | 0.198        |
| Technical data   |  |              |
| Visual free area   |  | 59%          |
| Physical free area   |  | 45%          |
| IP class [louvre with mesh; electrical installation at least 100 mm from louvre] |  | IP2XD        |



## TECHNICAL DRAWINGS



# 411

## Wall louvre, standard series

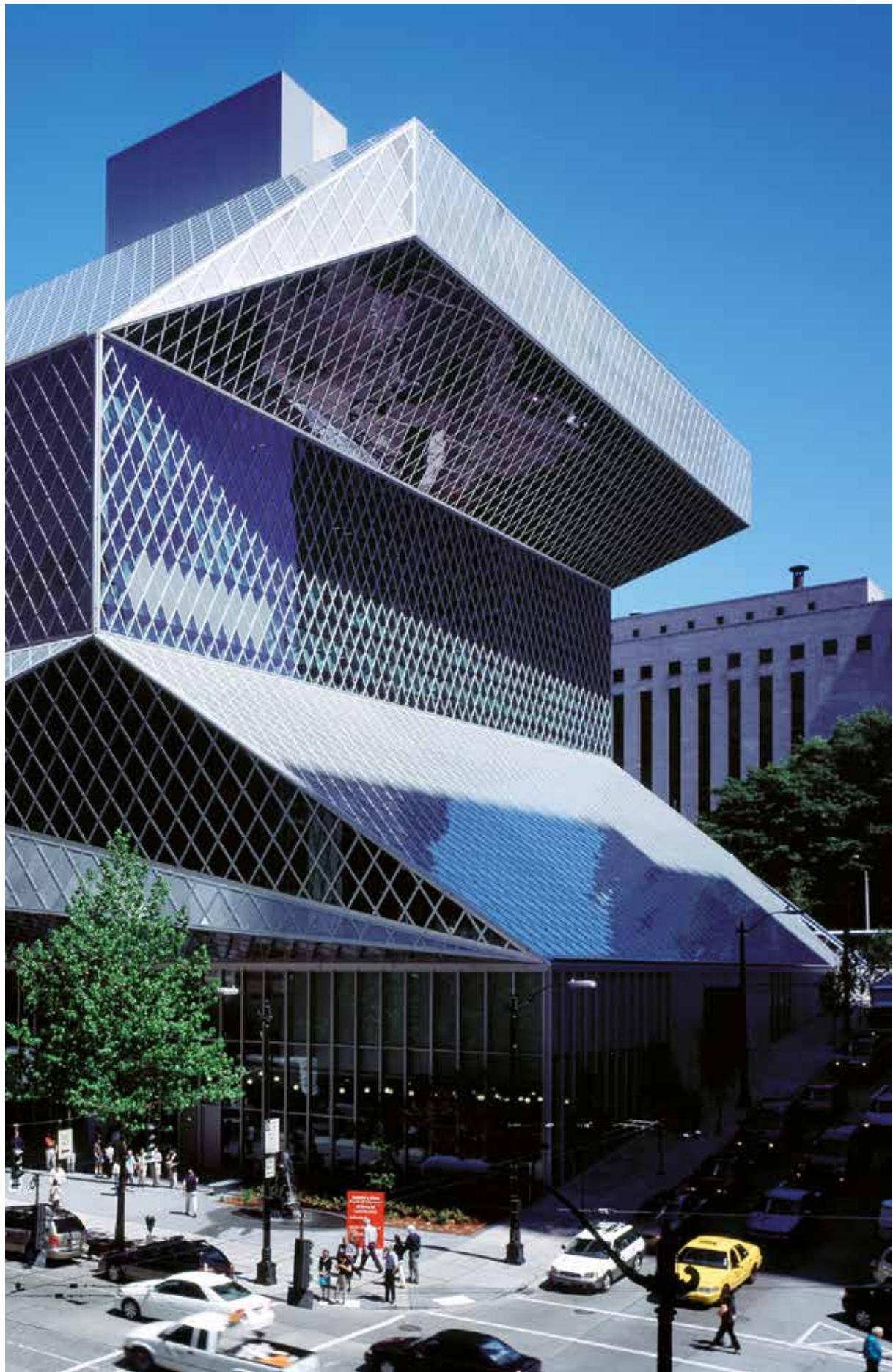
BUILT-IN WALL LOUVRE

ALUMINIUM



### STOCK MODELS

| Dimensions<br>(W x H) mm | Natural colour<br>anodised F1 | Renson<br>Standard<br>WHITE | STR 7016 | STR 9005 | Airflow at 2 Pa<br>(m³/h) |
|--------------------------|-------------------------------|-----------------------------|----------|----------|---------------------------|
| 142 x 142                | 00041197                      |                             |          |          | 27                        |
| 200 x 200                | 00041122                      | 00411226                    | 00411223 | 00411229 | 54                        |
| 300 x 200                | 00041132                      |                             |          |          | 81                        |
| 300 x 300                | 00041133                      |                             |          |          | 122                       |
| 400 x 200                | 00041142                      | 00411426                    |          |          | 108                       |
| 400 x 300                | 00041143                      | 00411436                    |          |          | 162                       |
| 400 x 400                | 00041144                      | 00411446                    |          |          | 217                       |
| 500 x 300                | 00041153                      |                             |          |          | 203                       |
| 500 x 400                | 00041154                      |                             |          |          | 271                       |
| 500 x 500                | 00041155                      |                             |          |          | 338                       |
| 600 x 300                | 00041163                      |                             |          |          | 244                       |
| 600 x 400                | 00041164                      |                             |          |          | 325                       |
| 600 x 600                | 00041166                      |                             |          |          | 487                       |
| 700 x 700                | 00041177                      |                             |          |          | 663                       |
| 1000 x 500               | 00411105                      |                             |          |          | 677                       |
| 1000 x 1000              | 00041111                      |                             |          |          | 1354                      |



# 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. 84]
- 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<br>[W x H] mm | Natural colour<br>anodised F1 | Airflow at 2 Pa [m³/h] |
|--------------------------|-------------------------------|------------------------|
| ø 300                    | 41103001                      | 96                     |

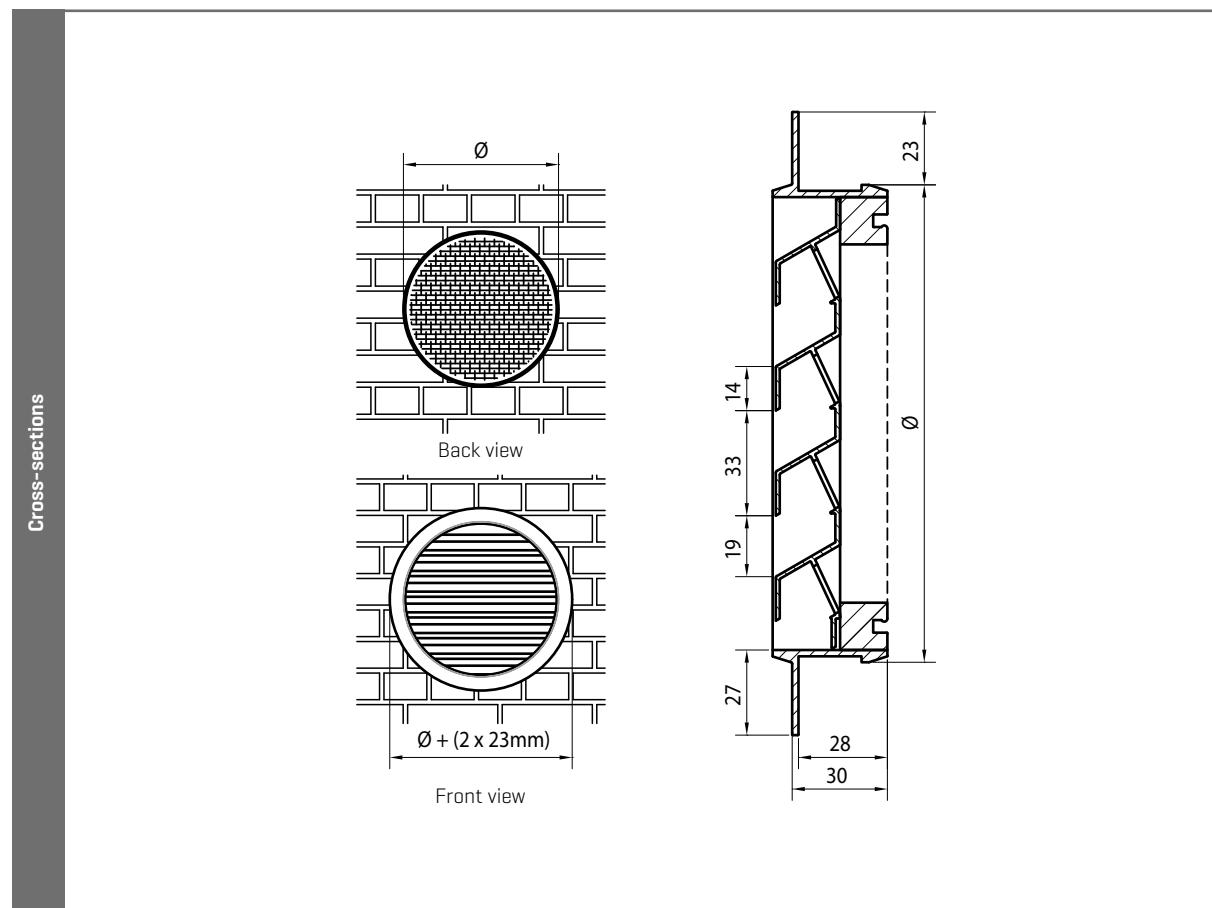
## TECHNICAL SPECIFICATIONS

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. 90]
- 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<br>[W x H] mm | Natural colour<br>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                                 |



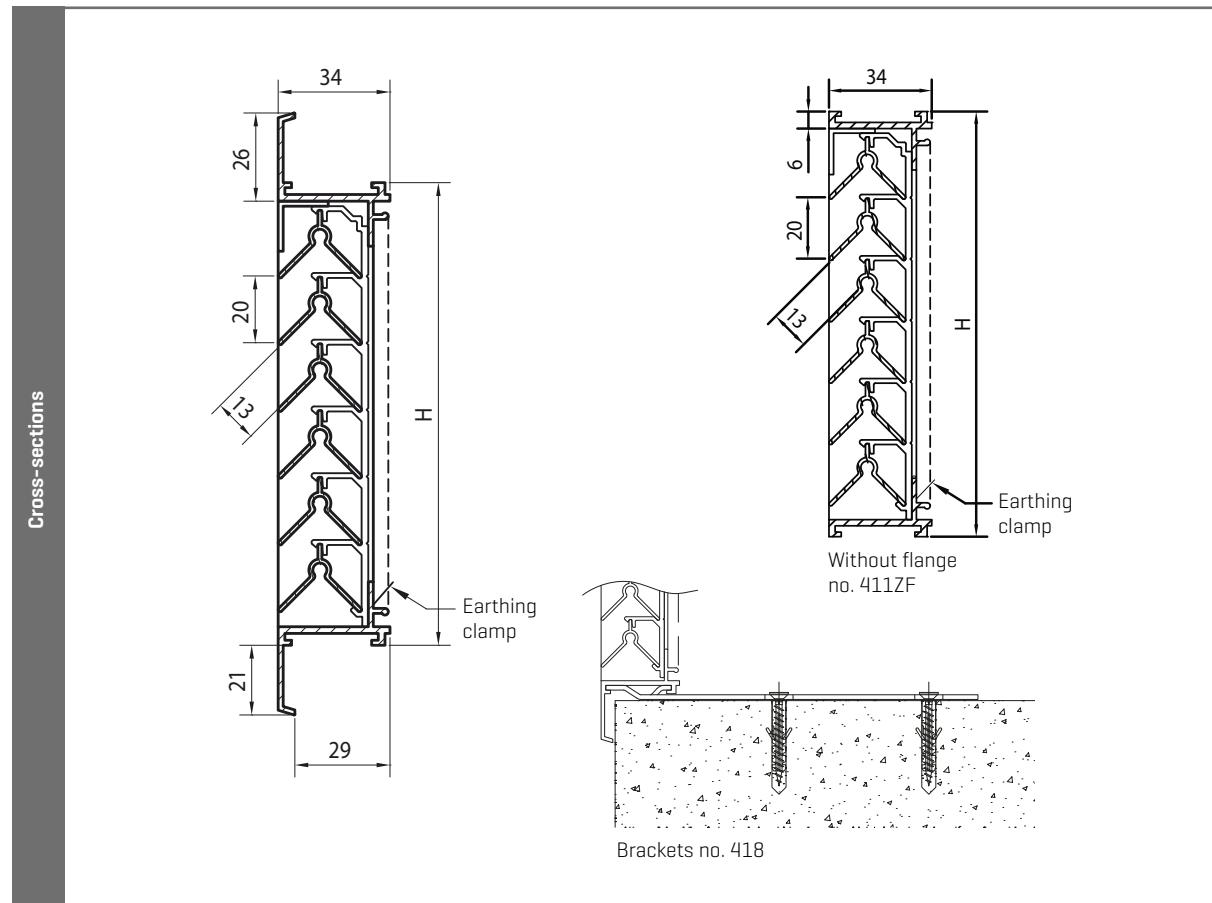
## TECHNICAL SPECIFICATIONS

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

| Weatherability  |                     | [EN 13030] |
|---|---------------------|------------|
| Class for execution with mesh 2.3x2.3 mm and water channel  | [details see p. 14] | A4 [1 m/s] |
| 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      |
| 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. 92]
- 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

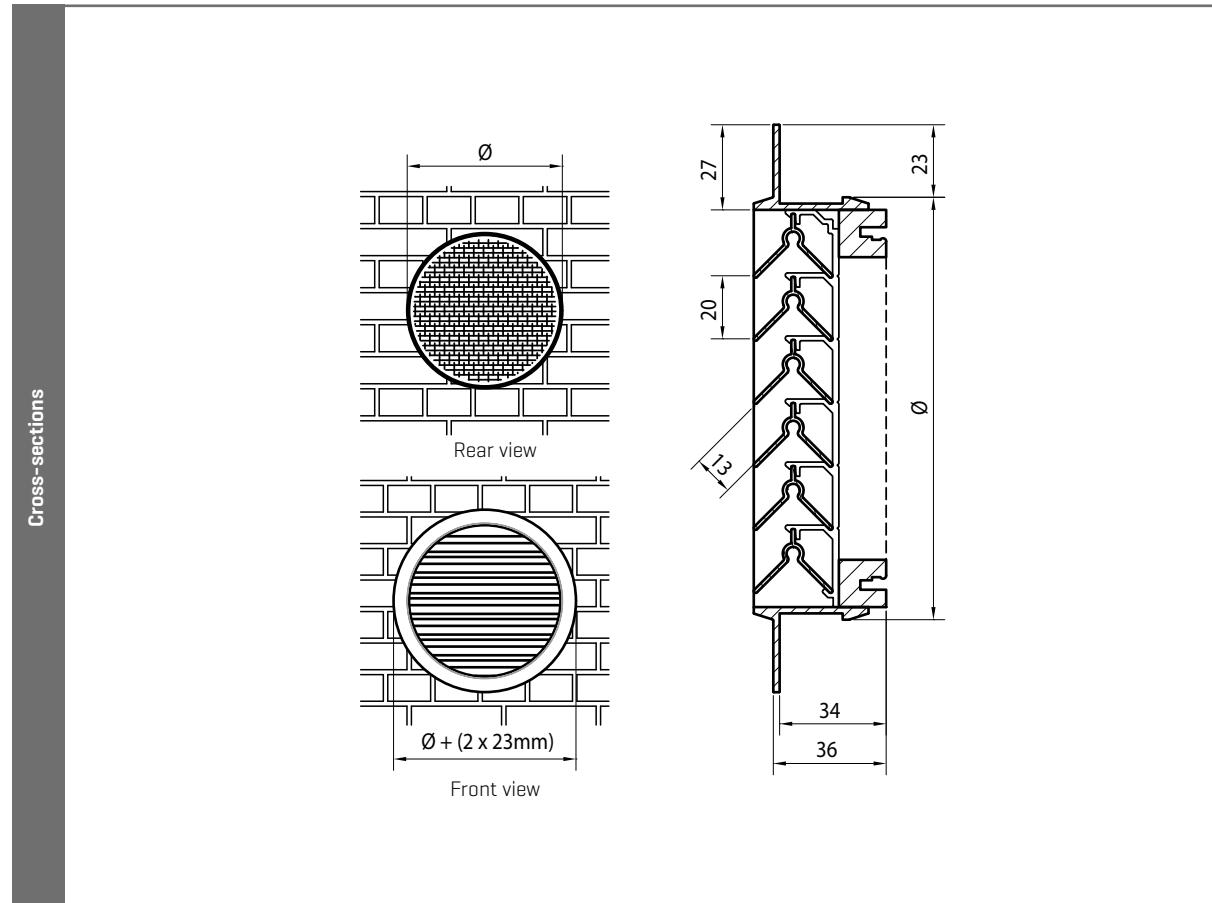


## TECHNICAL SPECIFICATIONS

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. 96]
- Burglar resistance louvre 421RC2 [see p. 122]
- 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

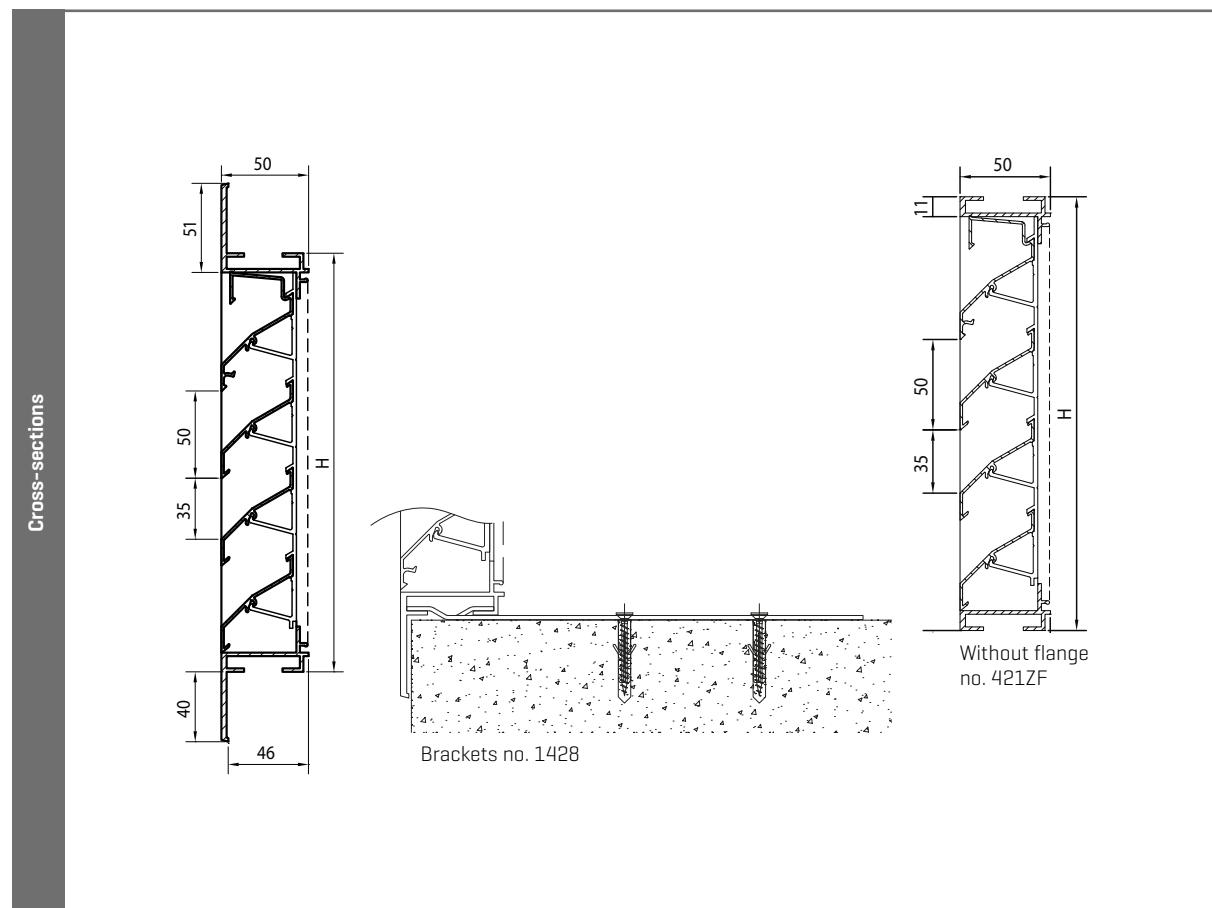
## TECHNICAL SPECIFICATIONS

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

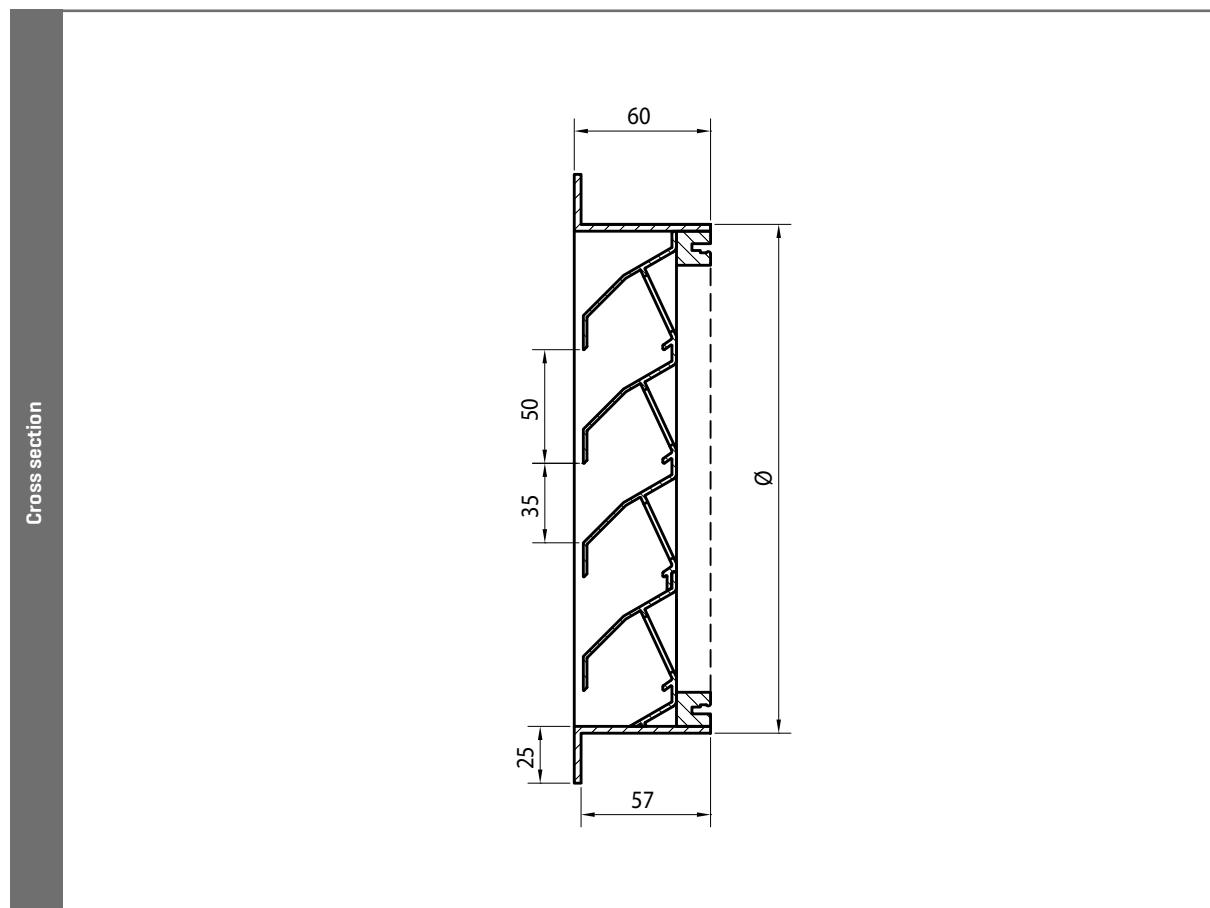
## TECHNICAL SPECIFICATIONS

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 |
| $C_e$ coefficient  | 0.273 |
| $C_d$ 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. 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

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

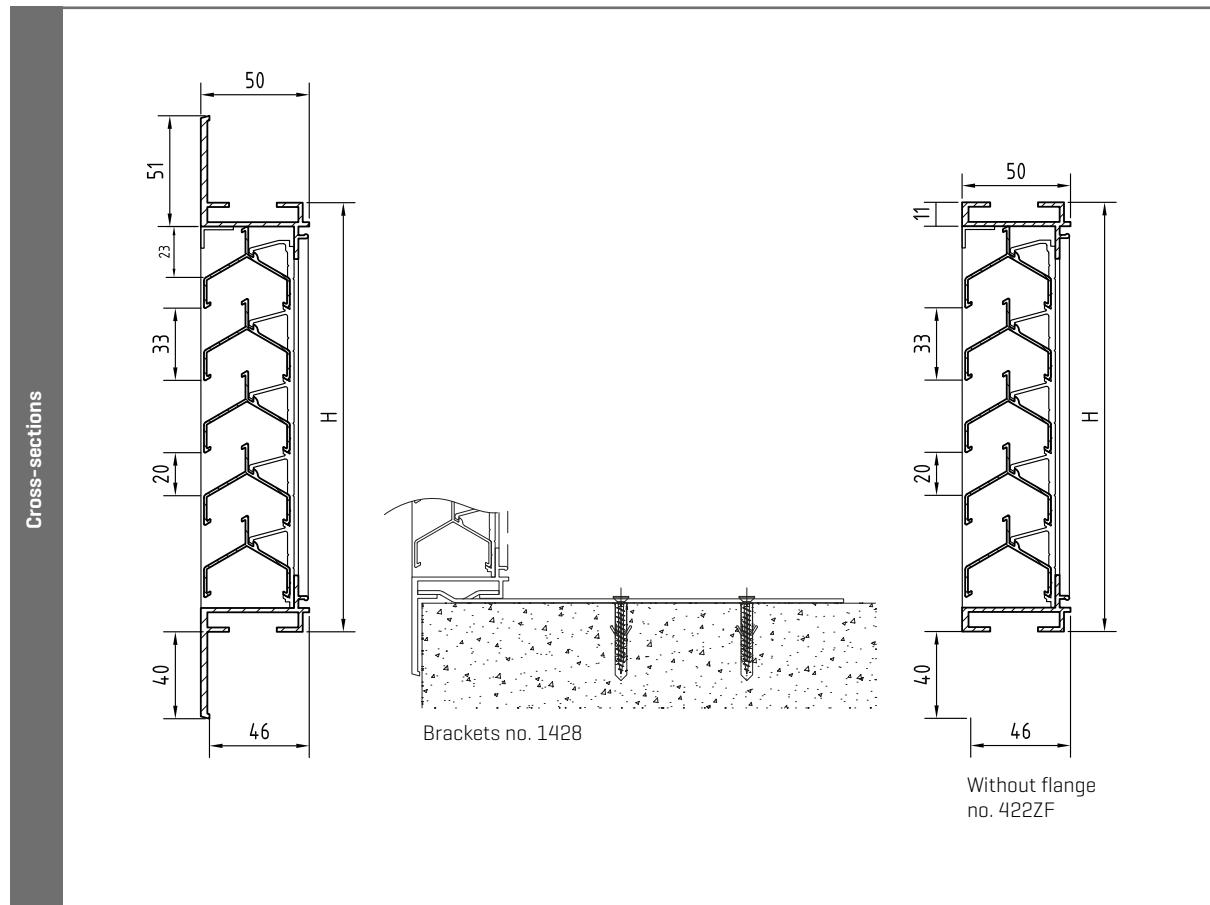


## TECHNICAL SPECIFICATIONS

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

| Weatherability  |  | [EN 13030]   |
|---|--|--------------|
| Class for execution with mesh 6x6 mm and water channels [details see p. 14]                           |  | A4 [0.5 m/s] |
| Airflow   |  | [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        |
| Technical data  |  |              |
| 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



# 425

## Built-in wall louvre, extra-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: 95 mm
- Depth to fit: 81,5 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 insect mesh
- Filter
- Without flange
- Glazed-in louvre 425GL [see p. 106]
- Stainless steel 304 insect screen 2,3x2,3 or mesh [10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

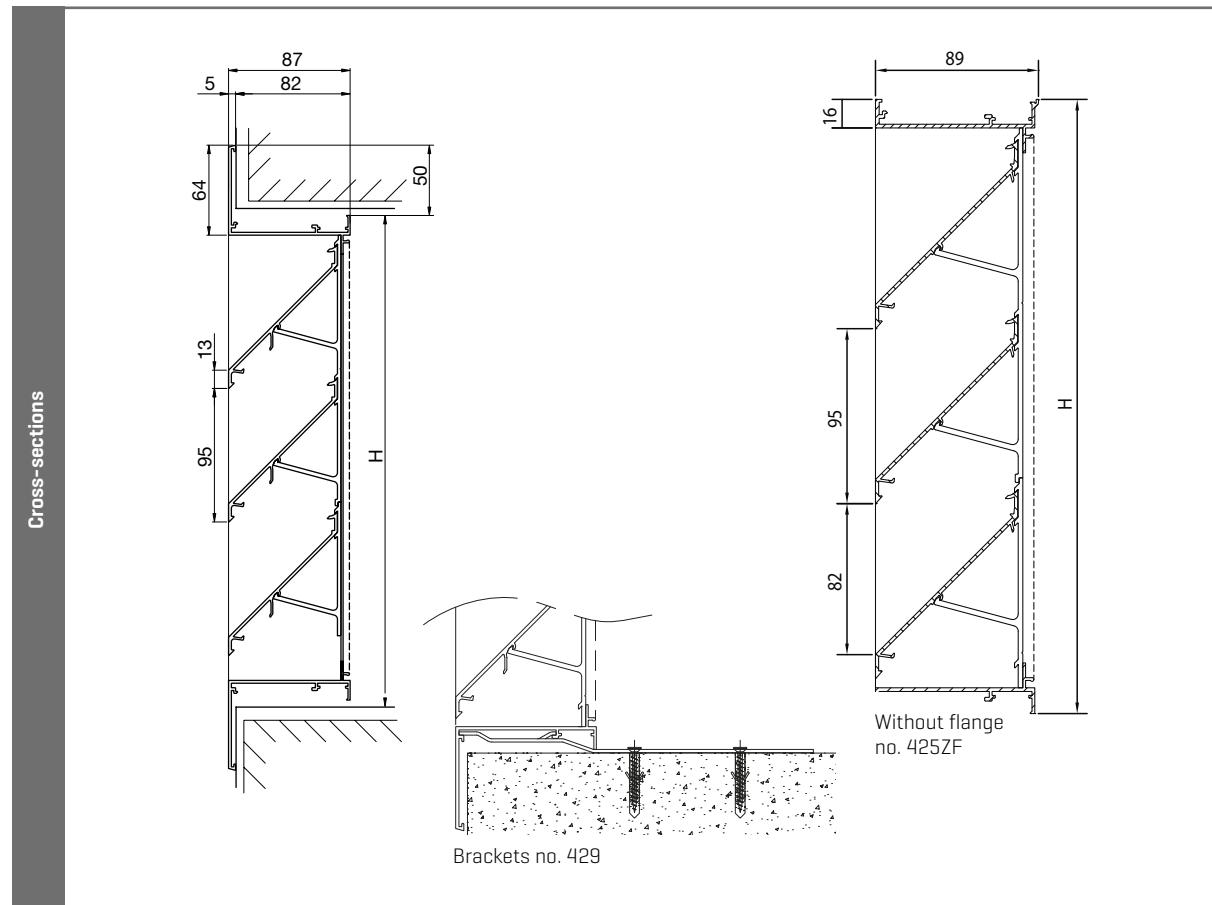
## TECHNICAL SPECIFICATIONS

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

| Airflow [EN 13030]         |       |
|----------------------------|-------|
| K-factor [entry]           | 12.40 |
| K-factor [discharge]       | 11.65 |
| C <sub>e</sub> coefficient | 0.284 |
| C <sub>d</sub> coefficient | 0.293 |
| Technical data             |       |
| Visual free area           | 86%   |
| Physical free area         | 55%   |



## 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. 108]

## 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

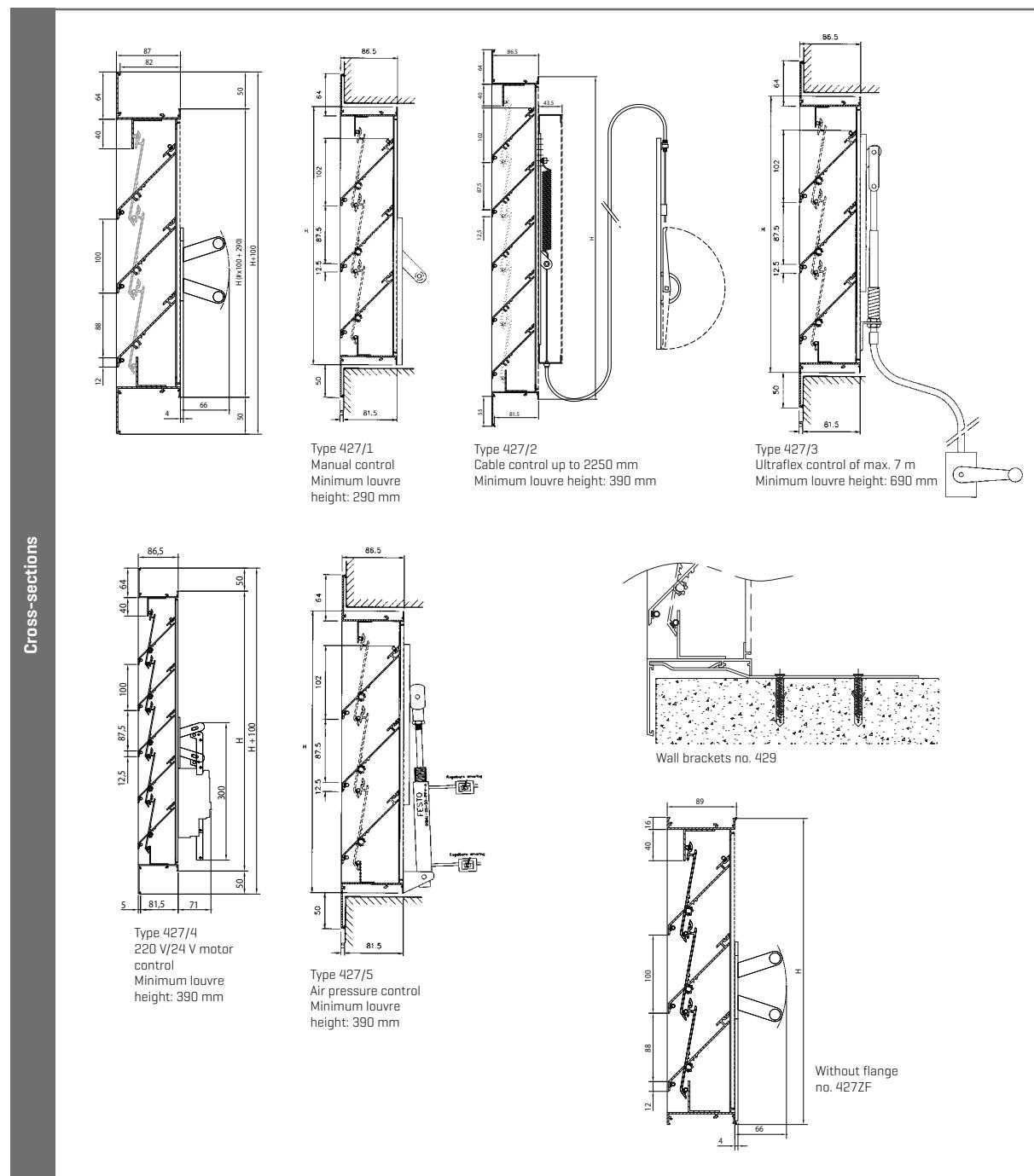
## TECHNICAL SPECIFICATIONS

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



# 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

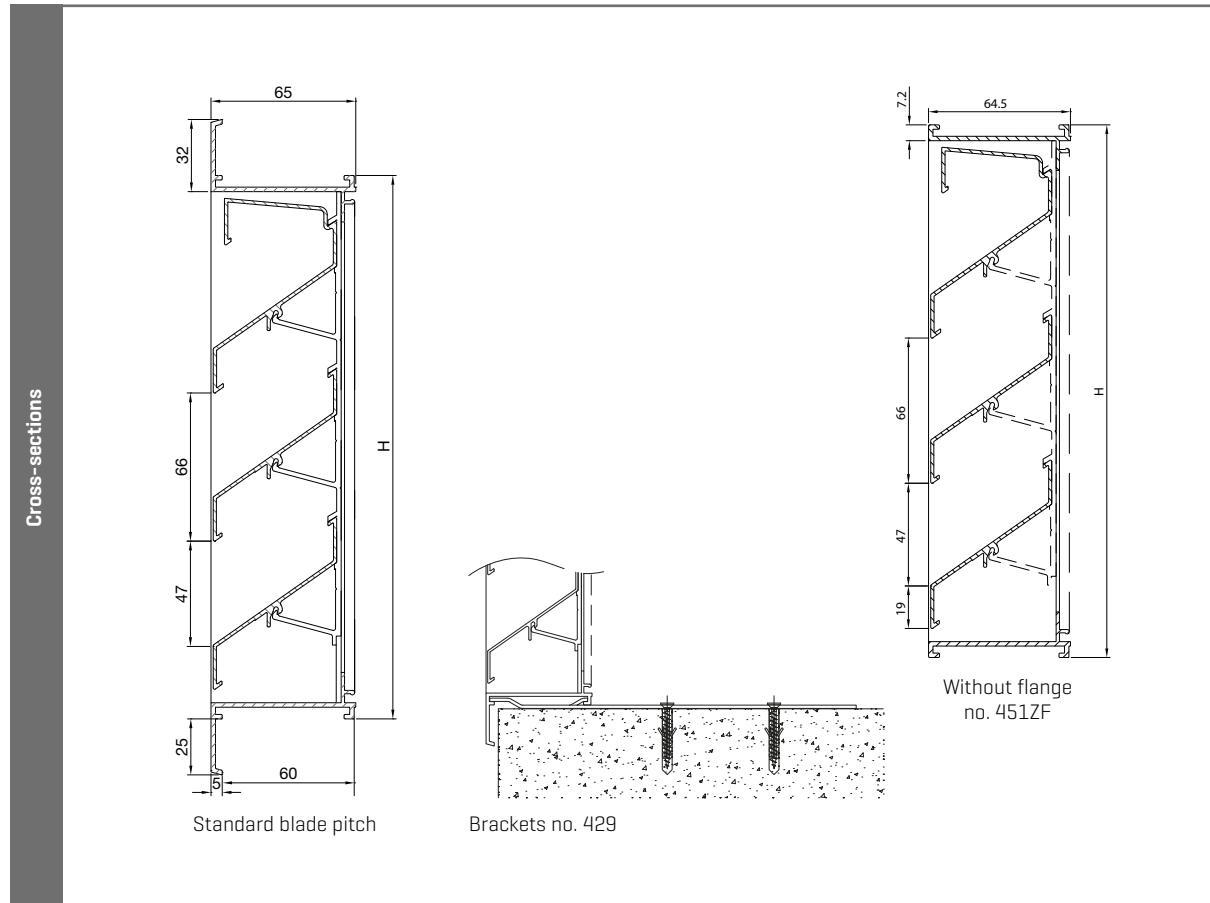
## TECHNICAL SPECIFICATIONS

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

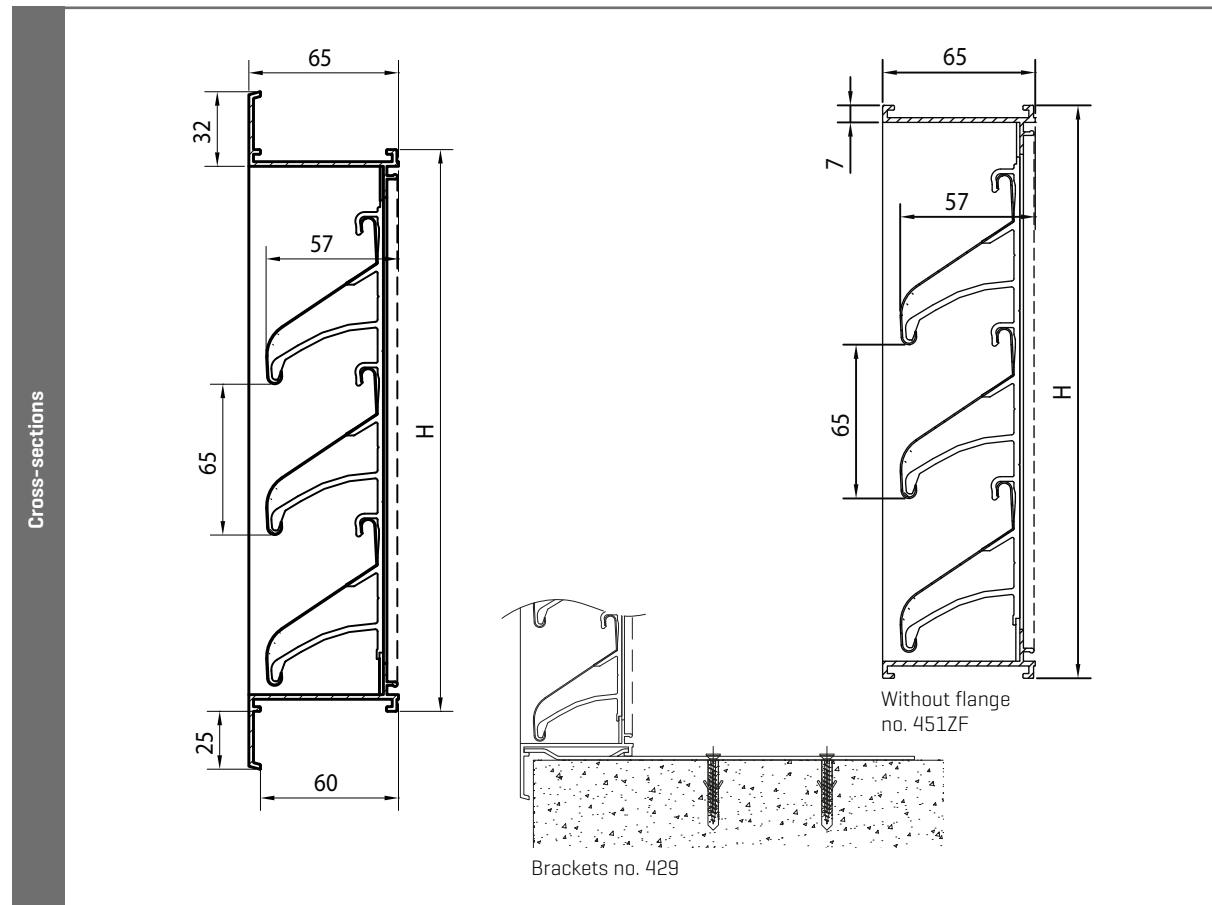
- Aesthetical

## 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

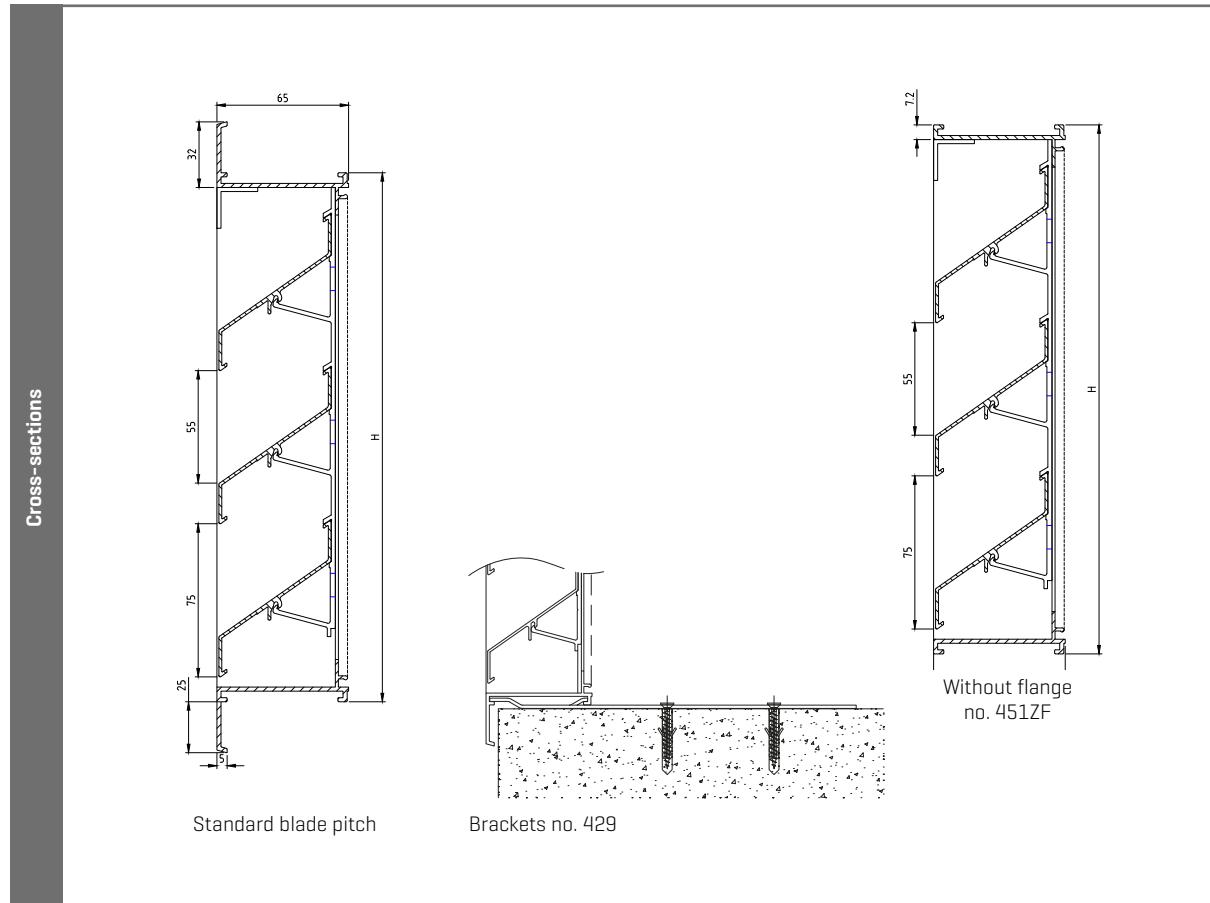
- Industrial, commercial with large blade pitch

## 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 |
| $C_e$ coefficient    | 0,276 |
| $C_d$ 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/m<sup>2</sup>*

### 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



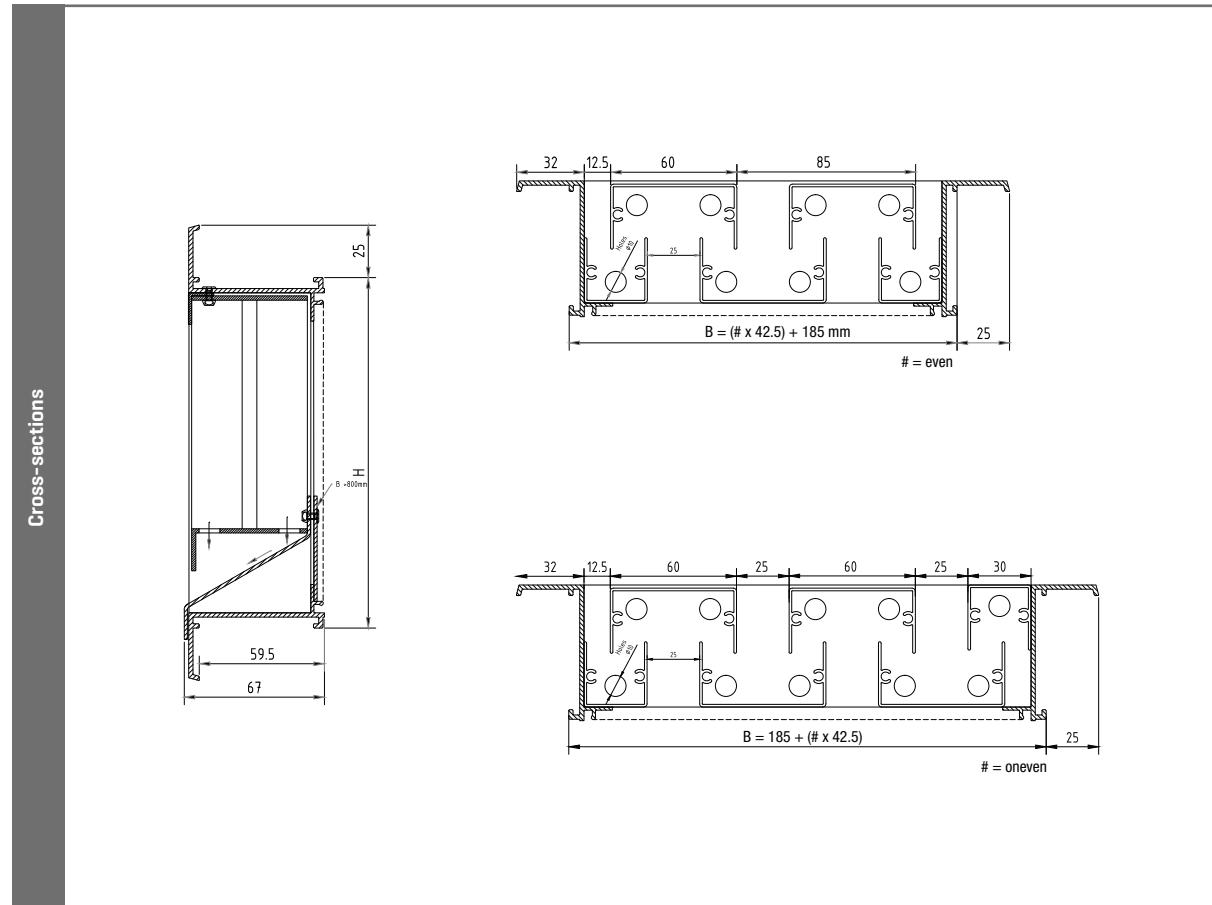
## TECHNICAL SPECIFICATIONS

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

| <b>Sand-resistance</b> |  | [EN 13181] |
|------------------------|--|------------|
| Suction air velocity   |  |            |
| 0 m/s                  |  | 97%        |
| 0.5 m/s                |  | 94%        |
| <b>Airflow</b>         |  | [EN 13030] |
| K-factor [entry]       |  | 115.62     |
| K-factor [exhaust]     |  | 115.62     |
| $C_e$ coefficient      |  | 0.093      |
| $C_d$ coefficient      |  | 0.093      |
| <b>Technical data</b>  |  |            |
| 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. 100]
- 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

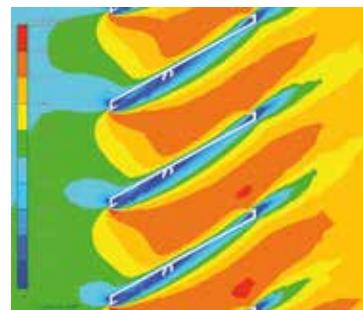


## TECHNICAL SPECIFICATIONS

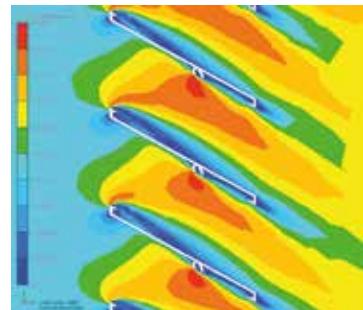
All properties are valid for the standard version of the Louvre, unless otherwise stated.

| Airflow  |  | [EN 13030] |
|--|--|------------|
| K-factor [entry]   |  | 5.03       |
| K-factor [discharge]   |  | 4.96       |
| $C_e$ coefficient  |  | 0.446      |
| $C_d$ coefficient  |  | 0.449      |
| 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

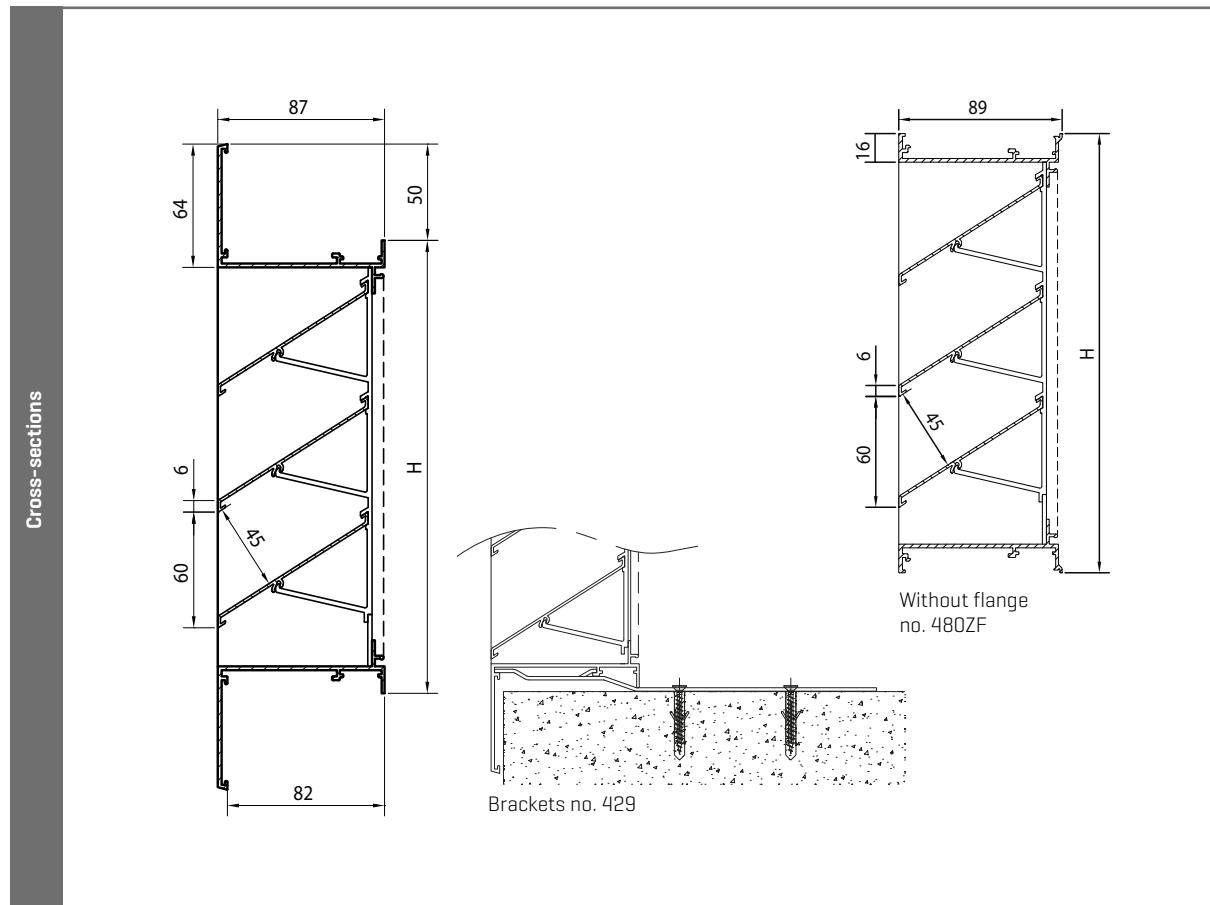


Supply



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. 102]
- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

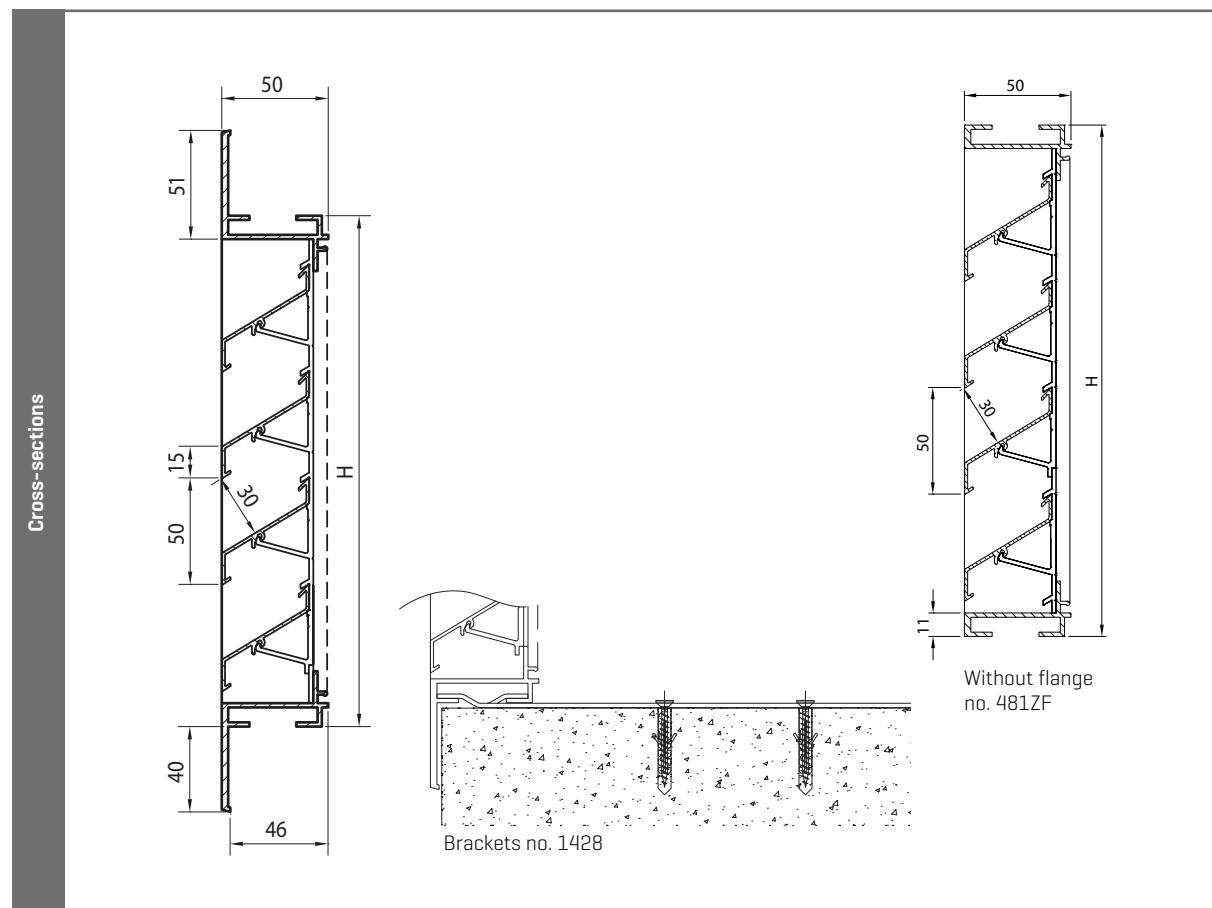
## TECHNICAL SPECIFICATIONS

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

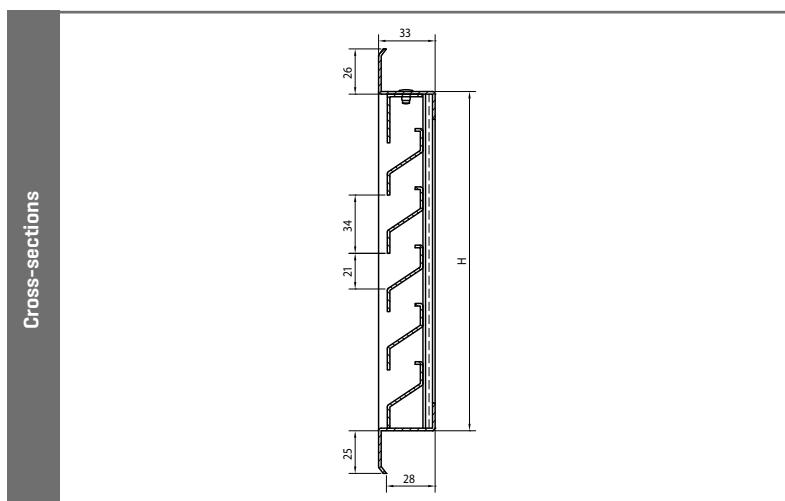
### TECHNICAL SPECIFICATIONS

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 louver, 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: 2000 x 2000 mm

### FIXING

- Brackets pre-fitted to the frame

### TYPICAL APPLICATIONS

- Basic louvre
- Economic solution
- Containers
- Paintable

### STOCK MODELS

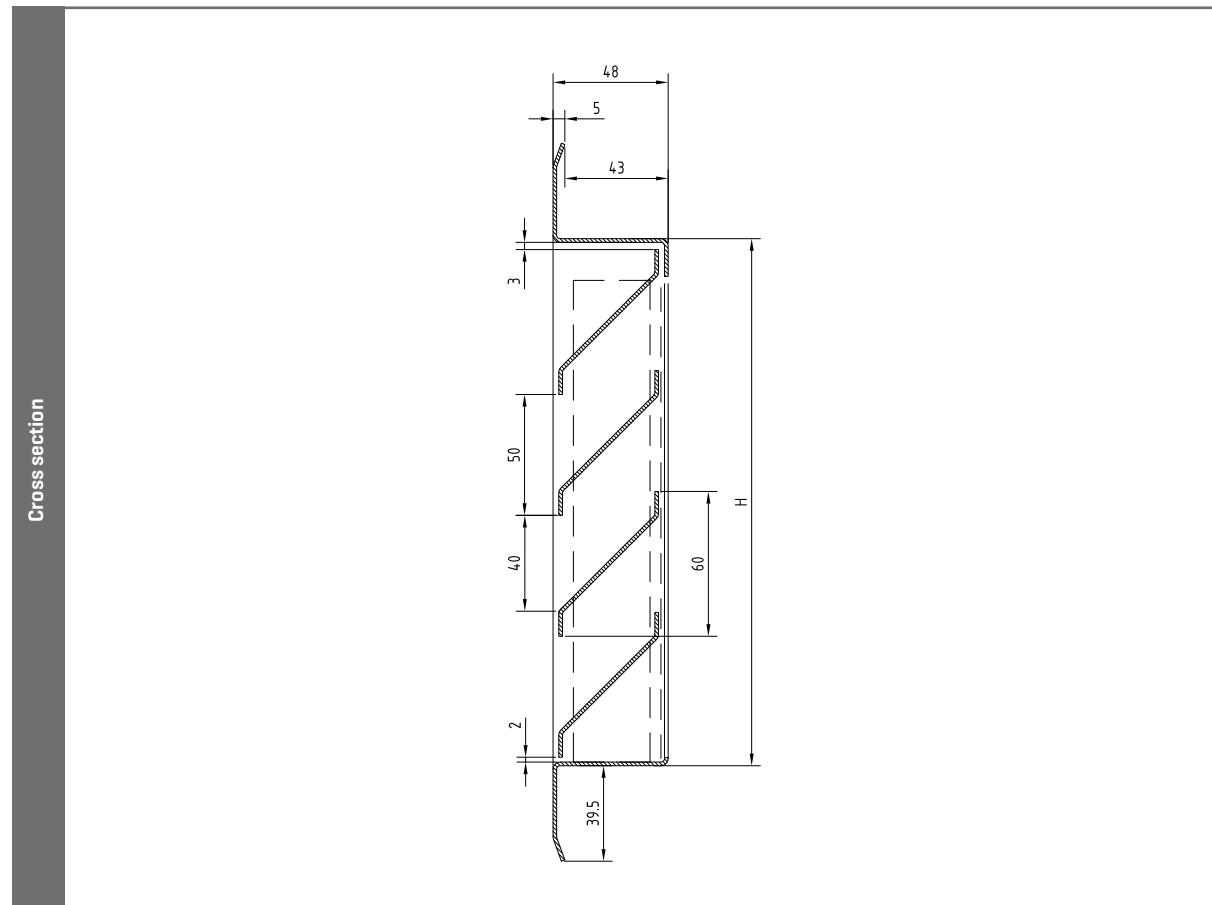
| Dimensions [W x H] mm | Galvanised steel |
|-----------------------|------------------|
| 400 x 400             | 00152144         |
| 500 x 500             | 00152155         |
| 600 x 600             | 00152166         |
| 1000 x 1000           | 15211010         |

## 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 |
| $C_e$ coefficient    | 0.259 |
| $C_d$ 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 [6 x 6 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

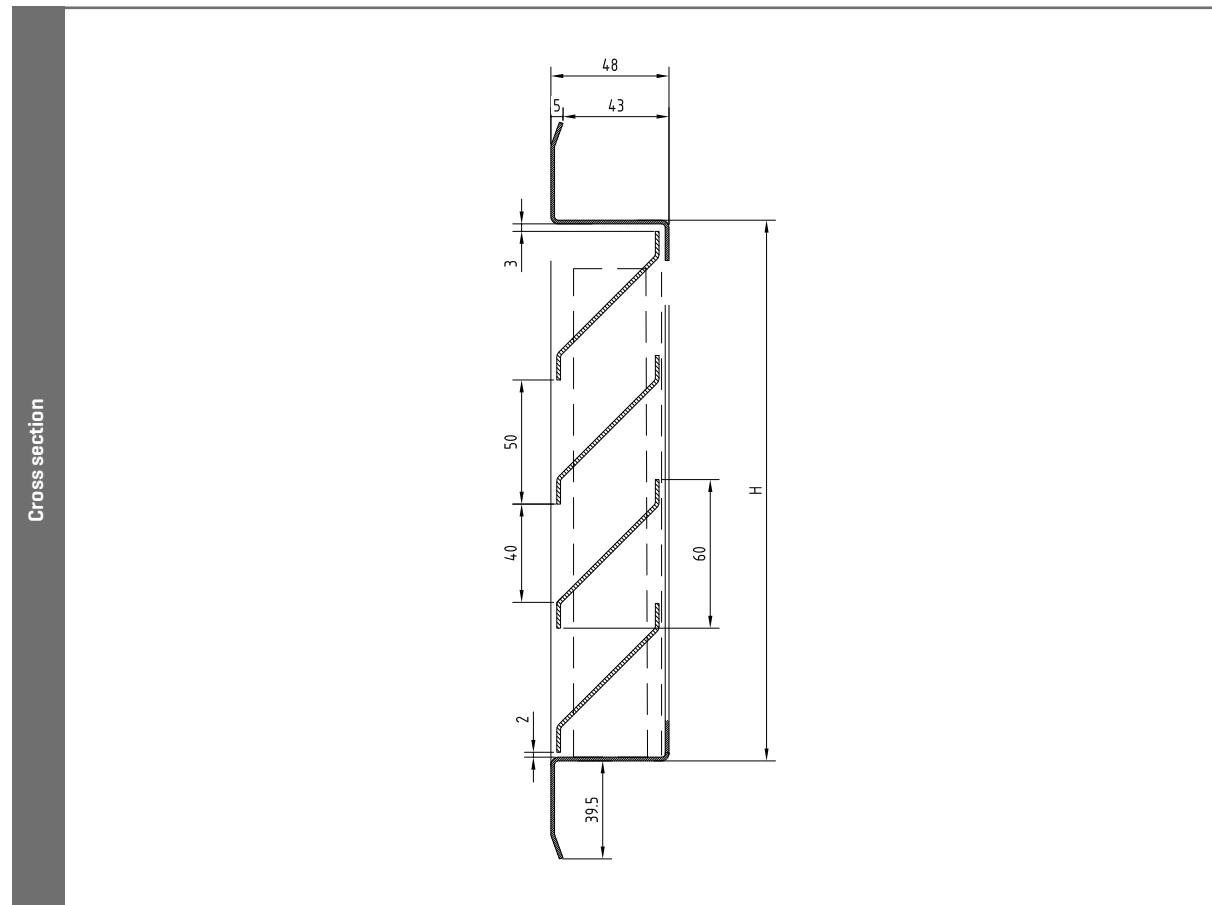
- Food sector
- Chemical sector
- Hospitals
- Environment with high corrosion

## 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 |
| $C_e$ coefficient    | 0.259 |
| $C_d$ 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
- For louvres wider than 2395mm, a reinforcing mullion is required to suit span and wind load subject to design

### 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

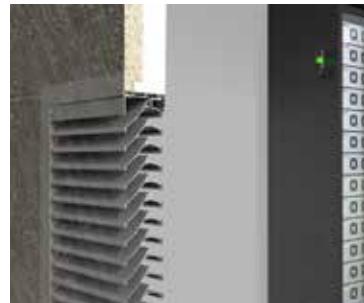
- Data and IT centres
- Power stations
- Substations
- Coastal applications



## TECHNICAL SPECIFICATIONS

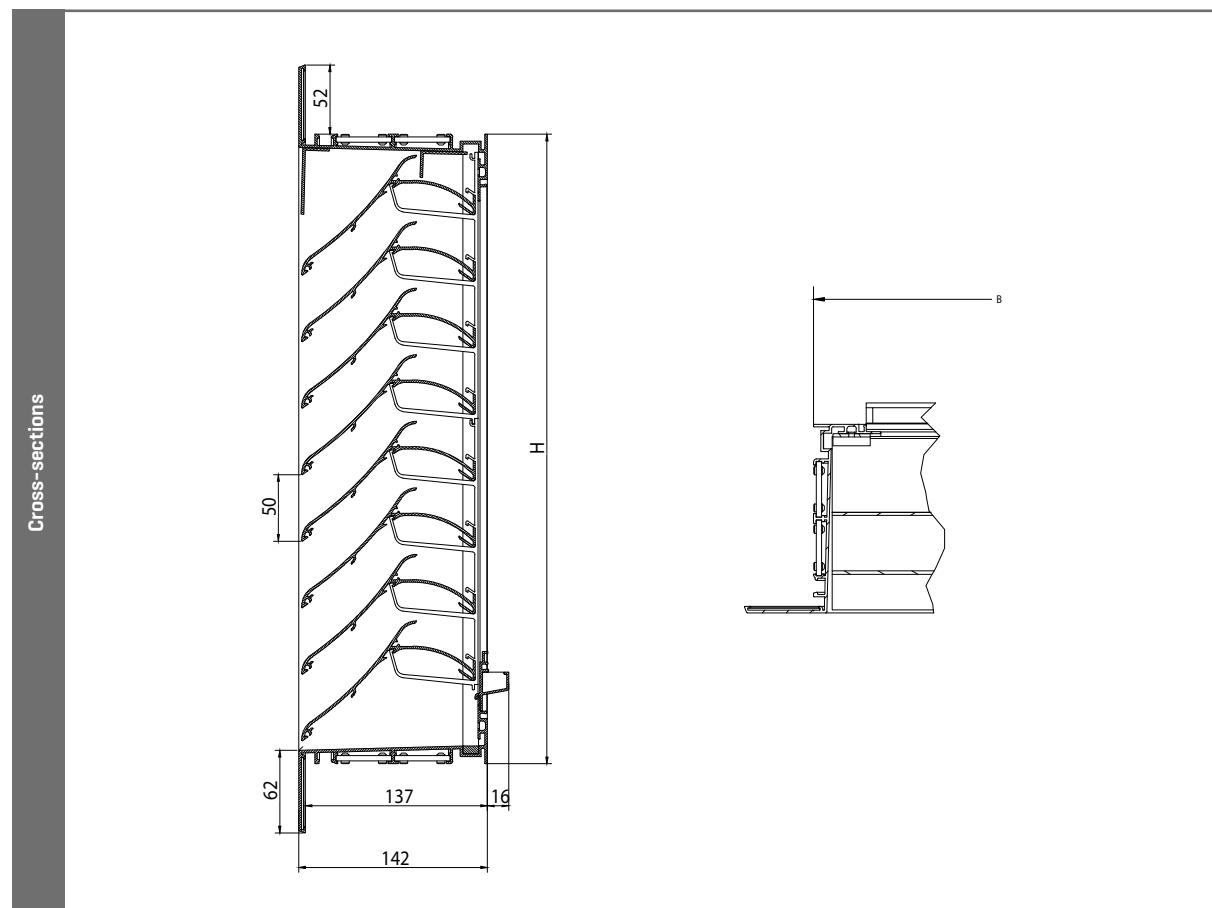
All properties are valid for the standard version of the Louvre, unless otherwise stated.

| Weatherability                     |  | [EN 13030] |
|------------------------------------|--|------------|
| Class [details see p. 14]          |  | A2 [3 m/s] |
| Airflow                            |  | [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      |
| Technical data                     |  |            |
| 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

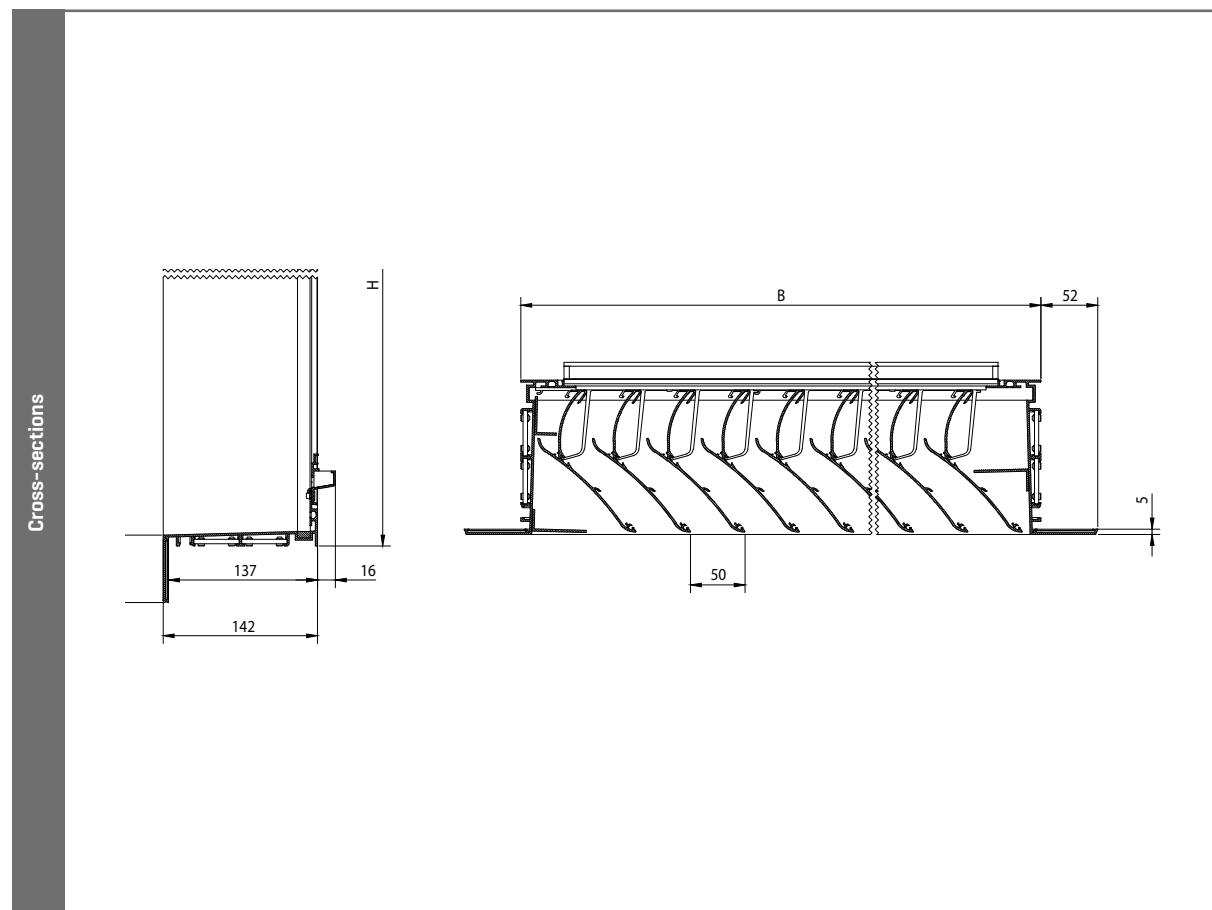
All properties are valid for the standard version of the Louvre, unless otherwise stated.

| Weatherability             |  | [EN 13030] |
|----------------------------|--|------------|
| Class [details see p. 14]  |  | A2 [4 m/s] |
| Airflow                    |  | [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      |
| Technical data             |  |            |
| 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

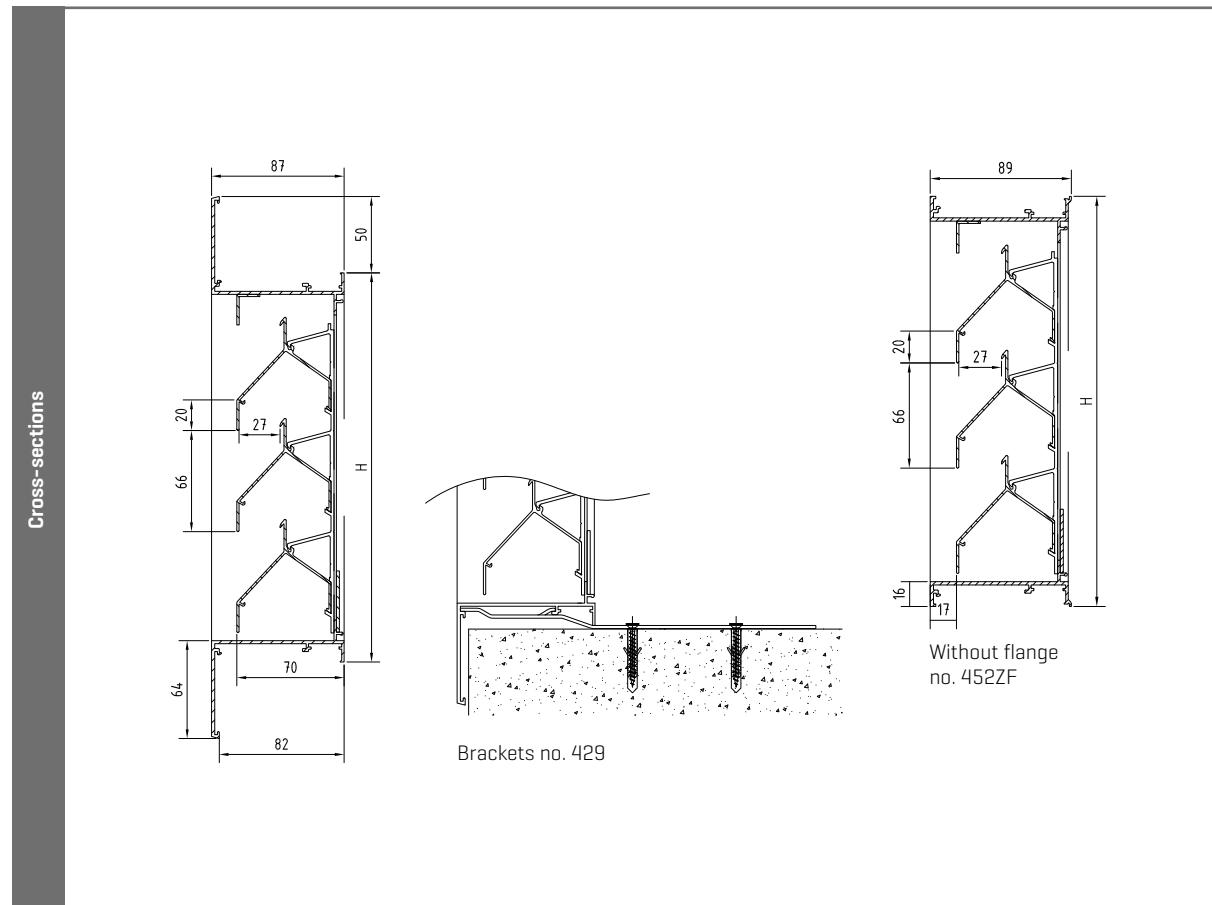


## TECHNICAL SPECIFICATIONS

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

| Weatherability  |  | [EN 13030] |
|---|--|------------|
| Class for version with mesh 6x6 mm and water channel<br>[details see p. 14]                           |  | A4 [1 m/s] |
| Airflow   |  | [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      |
| Technical data  |  |            |
| 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

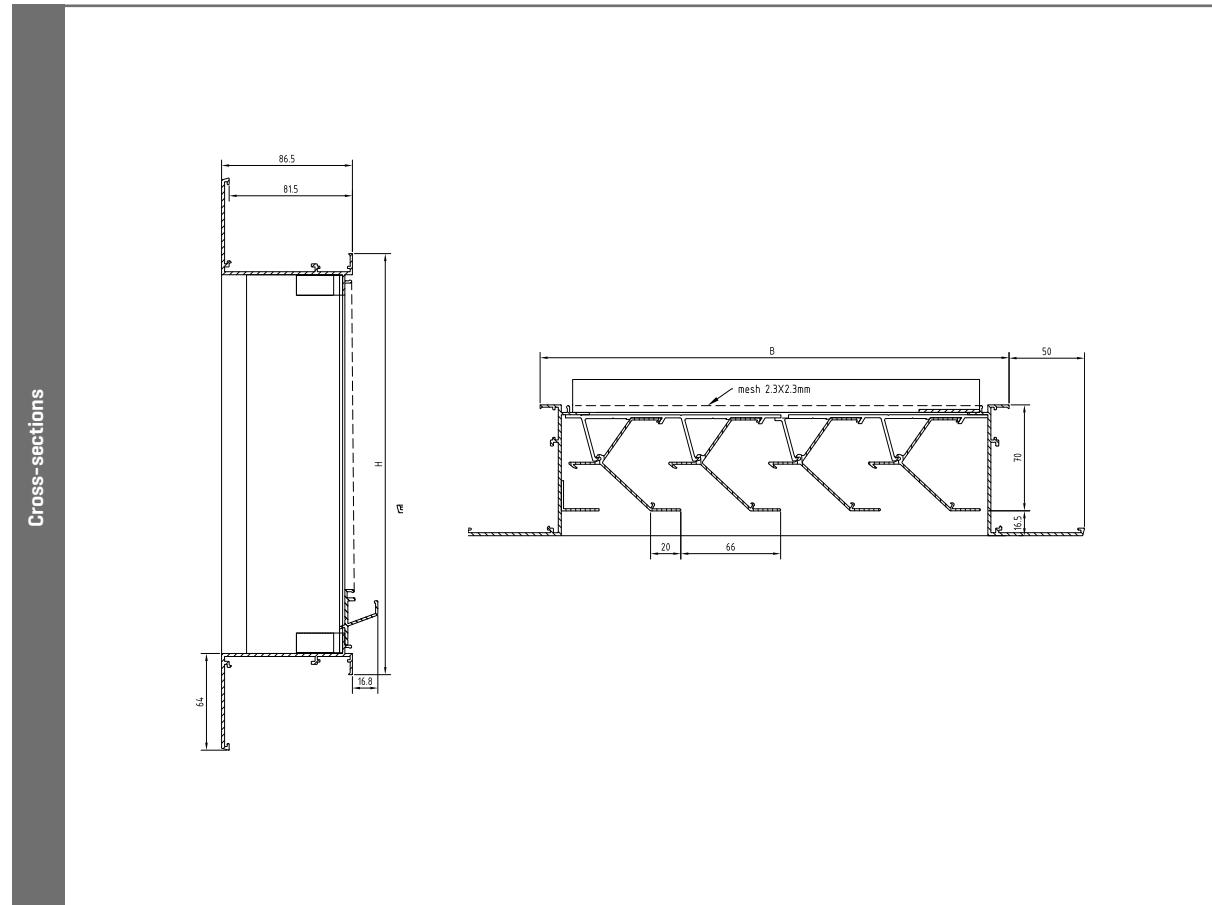


## TECHNICAL SPECIFICATIONS

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

| Weatherability   |  | [EN 13030]   |
|--|--|--------------|
| Class for execution with mesh 2.3x2.3 mm and water channel [details see p. 14] |  | A4 [1.5 m/s] |
| Airflow  |  | [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        |
| Technical data   |  |              |
| 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 Smax. = 3,5 m<sup>2</sup>
- 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. 70

## TYPICAL APPLICATIONS

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

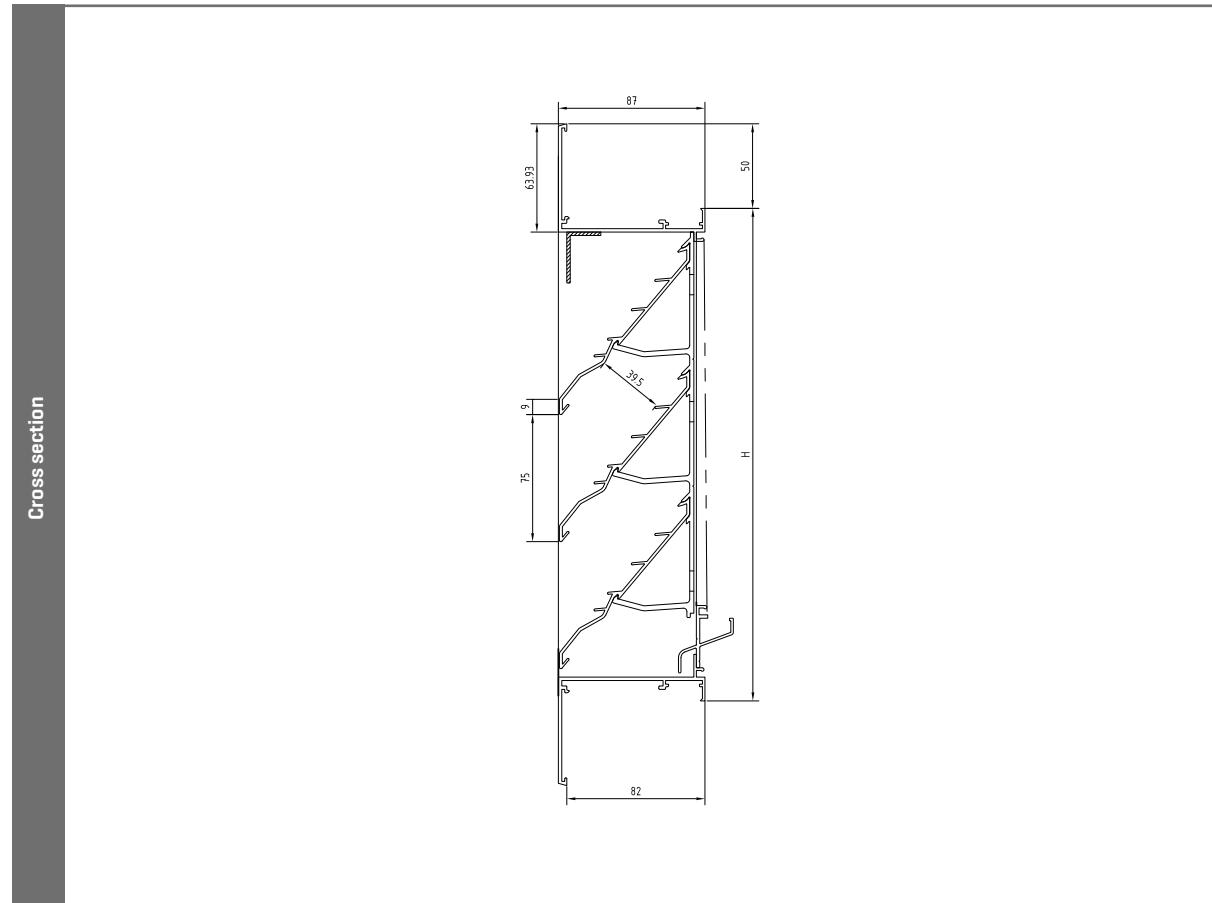


## TECHNICAL SPECIFICATIONS

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

| Weatherability             |  | [EN 13030] |
|----------------------------|--|------------|
| Class [details see p. 14]  |  | A2 [0 m/s] |
| Airflow                    |  | [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      |
| Technical data             |  |            |
| 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

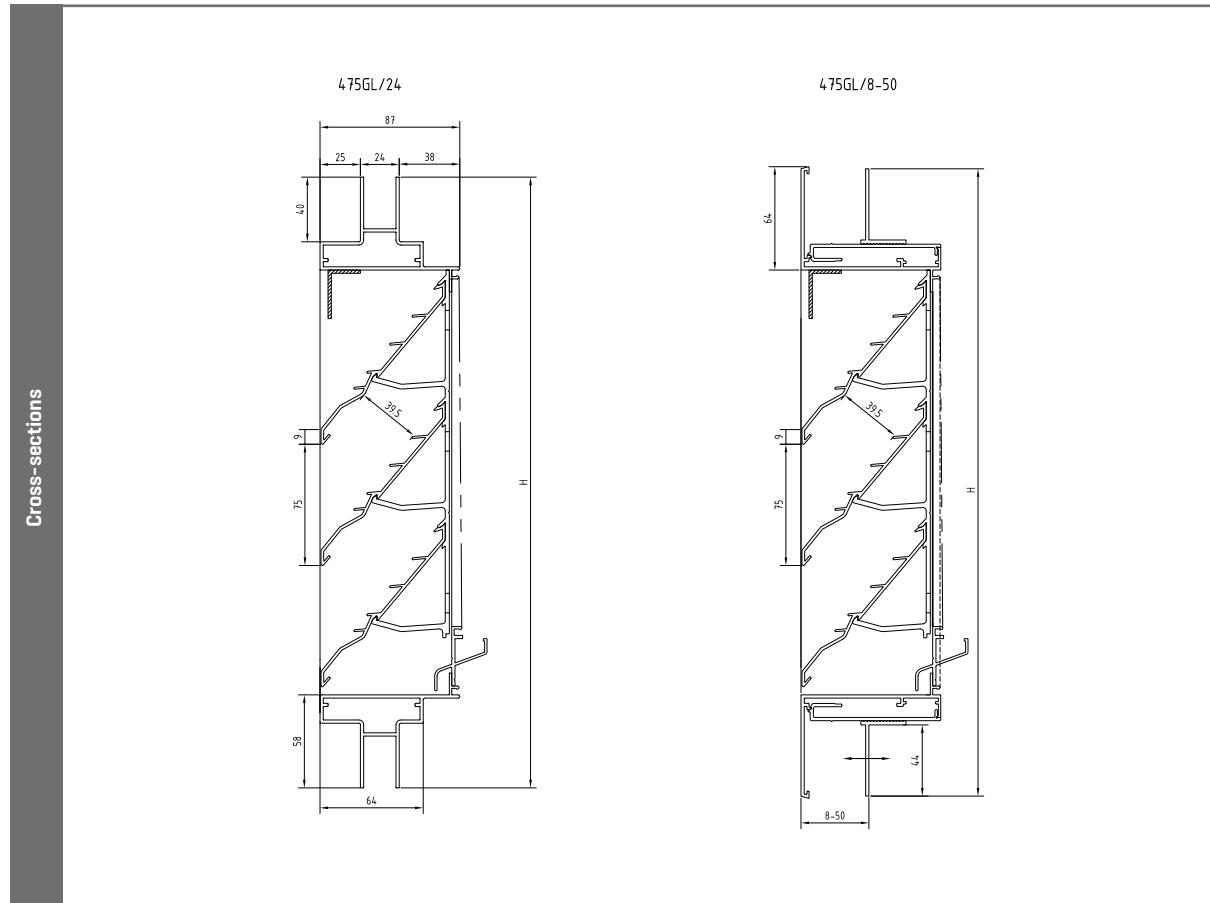


## TECHNICAL SPECIFICATIONS

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

| Weatherability             |  | [EN 13030] |
|----------------------------|--|------------|
| Class [details see p. 14]  |  | A2 [0 m/s] |
| Airflow                    |  | [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      |
| Technical data             |  |            |
| Visual free area           |  | 76%        |
| Physical free area         |  | 53%        |

## TECHNICAL DRAWINGS



# 491

## 'Storm' wall louvre

WATER-  
RESISTANT  
LOUVRÉ

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. 104]

### TYPICAL APPLICATIONS

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

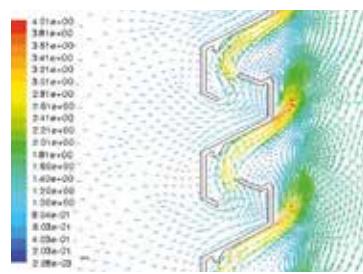


## TECHNICAL SPECIFICATIONS

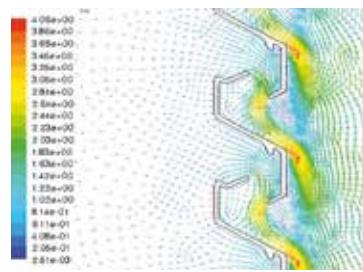
All properties are valid for the standard version of the Louvre, unless otherwise stated.

| Weatherability  |  | [EN 13030]   |
|---|--|--------------|
| Class for version with mesh 6x6 mm and water channel [details see p. 14]                              |  | 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

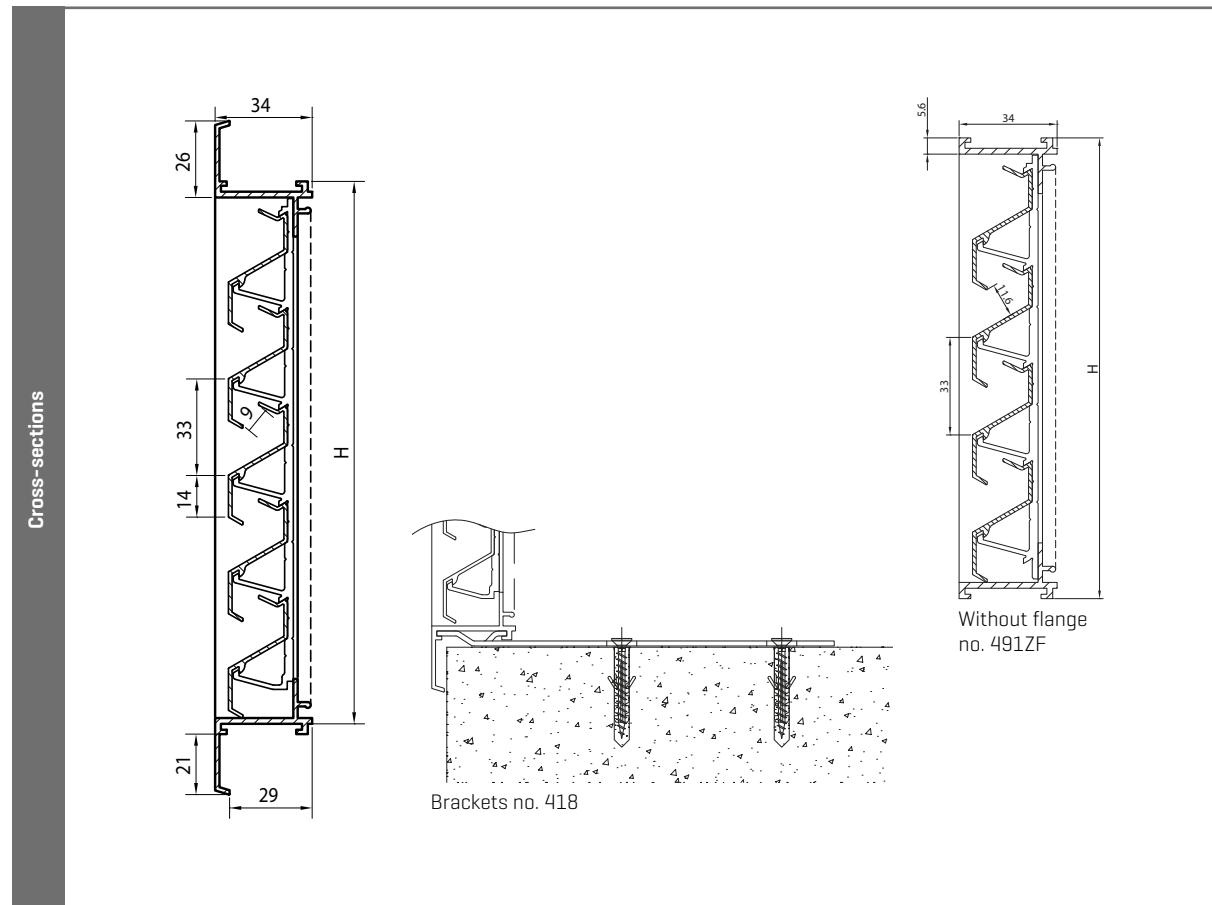


Supply



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. 126]
- Insect screen or mesh in stainless steel 316

### TYPICAL APPLICATIONS

- Fixed louvre
- Nightcooling
- Standard surface-mounted louvre

### STOCK MODELS

| Dimensions<br>[W x H] mm | Natural colour<br>anodised | Renson<br>Standard<br>WHITE | STR 7016 | STR 9005 | Airflow at 2 Pa<br>[m³/h] |
|--------------------------|----------------------------|-----------------------------|----------|----------|---------------------------|
| 165 x 165                | 00431111                   | 00431116                    | 00431113 | 00431119 | 29.4                      |
| 225 x 225                | 00431122                   | 00431226                    | 00431223 | 00431229 | 56.8                      |
| 325 x 325                | 00431133                   | 00431336                    |          |          | 143                       |
| 425 x 425                | 00431144                   |                             |          |          | 245                       |
| 525 x 525                | 00431155                   |                             |          |          | 373                       |

## TECHNICAL SPECIFICATIONS

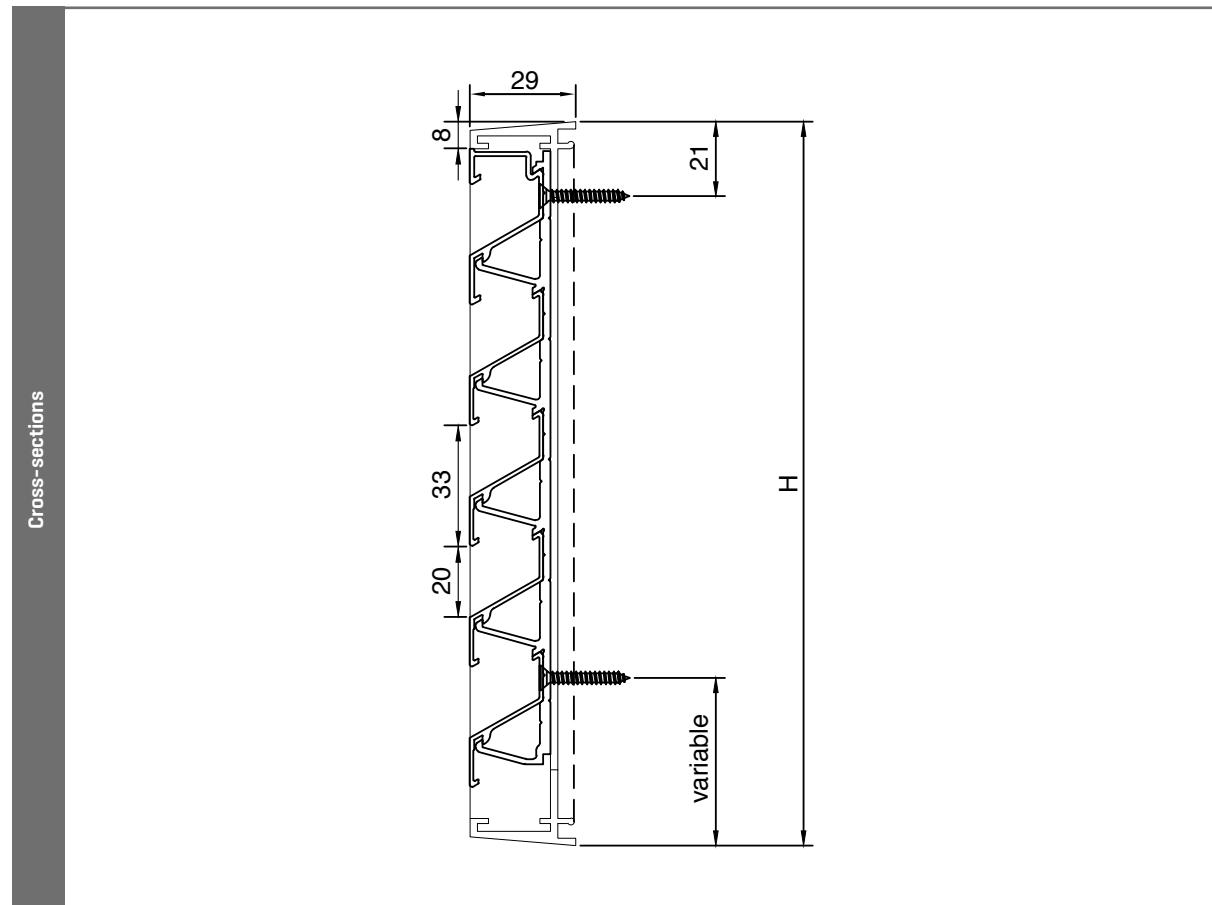
All properties are valid for the standard version of the Louvre, unless otherwise stated.

| Airflow  |  | [EN 13030] |
|--|--|------------|
| K-factor [entry]   |  | 26.30      |
| K-factor [discharge]   |  | 25.51      |
| $C_e$ coefficient  |  | 0.195      |
| $C_d$ coefficient  |  | 0.198      |
| Technical data   |  |            |
| Visual free area   |  | 59%        |
| Physical free area   |  | 45%        |
| 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

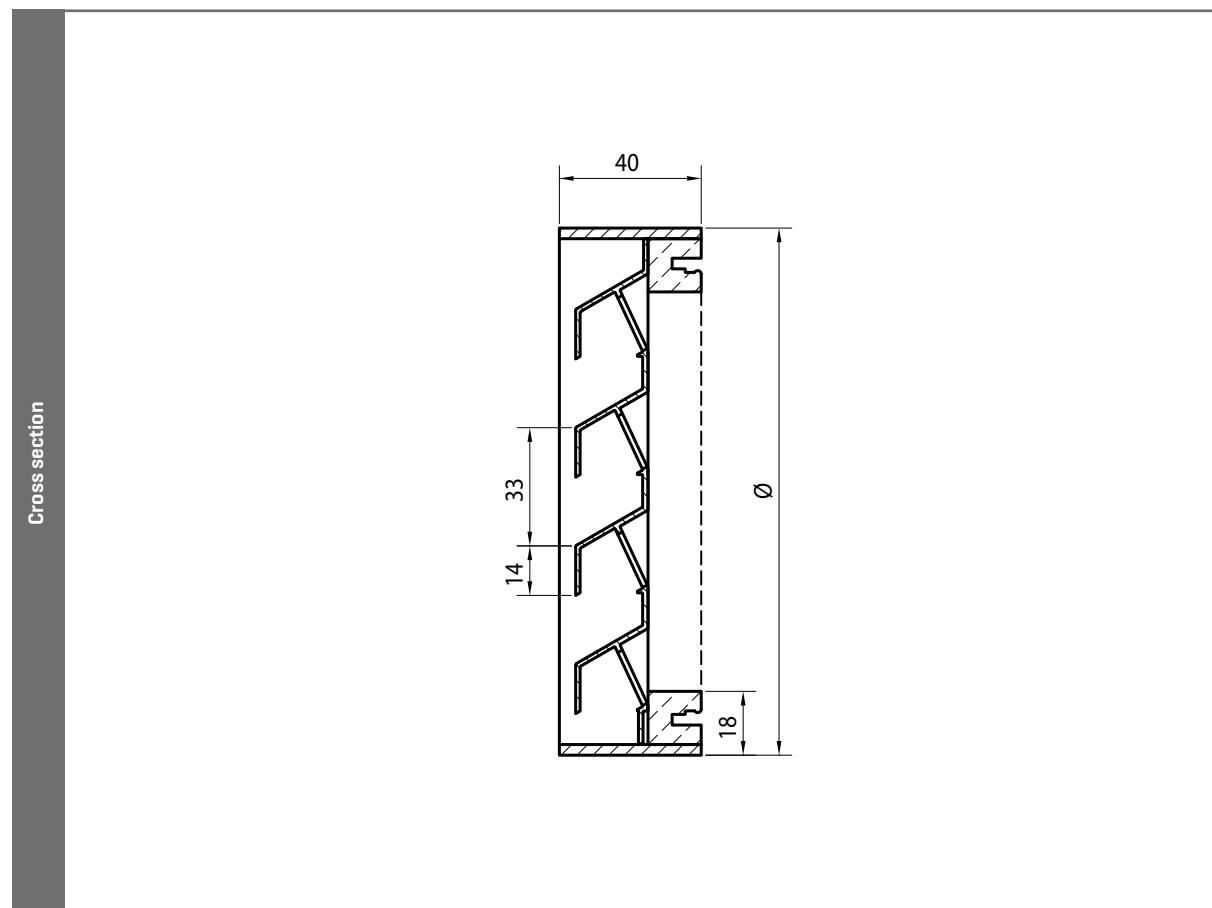
- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

## 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: 136 x 136 mm
- Maximum surface: 2.25 m<sup>2</sup>

### FIXING

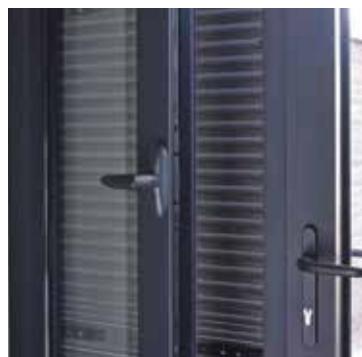
- Screws and plugs are included

### 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



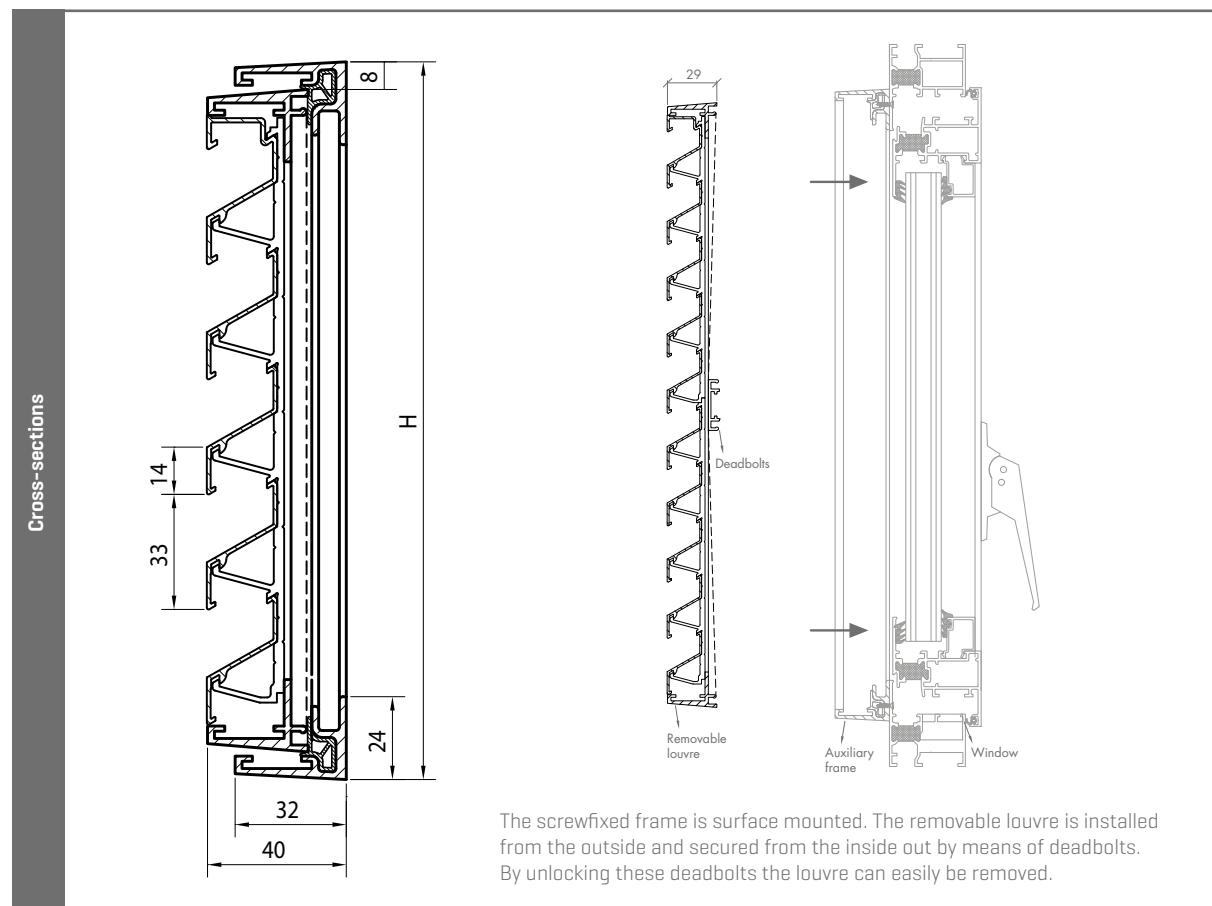
## TECHNICAL SPECIFICATIONS

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

| Airflow [EN 13030]         |       |
|----------------------------|-------|
| K-factor [entry]           | 26.30 |
| K-factor [discharge]       | 25.51 |
| C <sub>e</sub> coefficient | 0.195 |
| C <sub>d</sub> coefficient | 0.198 |
| Technical data             |       |
| Visual free area           | 59%   |
| Physical free area         | 45%   |



## TECHNICAL DRAWINGS



# 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

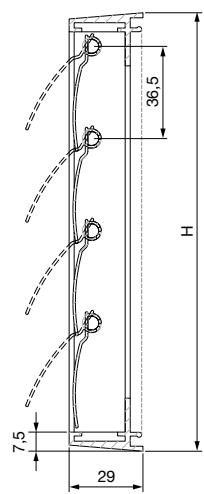
| Dimensions [W x H] mm                | Natural colour anodised | Renson Standard WHITE | RAL 8019 | STR 7016 | STR 9005 |
|--------------------------------------|-------------------------|-----------------------|----------|----------|----------|
| <b>Extractor hood louvres 433/S</b>  |                         |                       |          |          |          |
| 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                |                       |          |          |          |



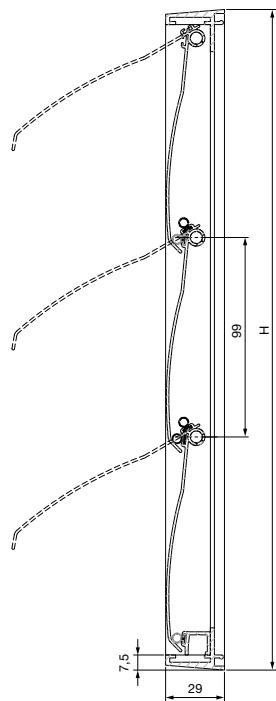
## TECHNICAL DRAWINGS

### Cross-sections

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



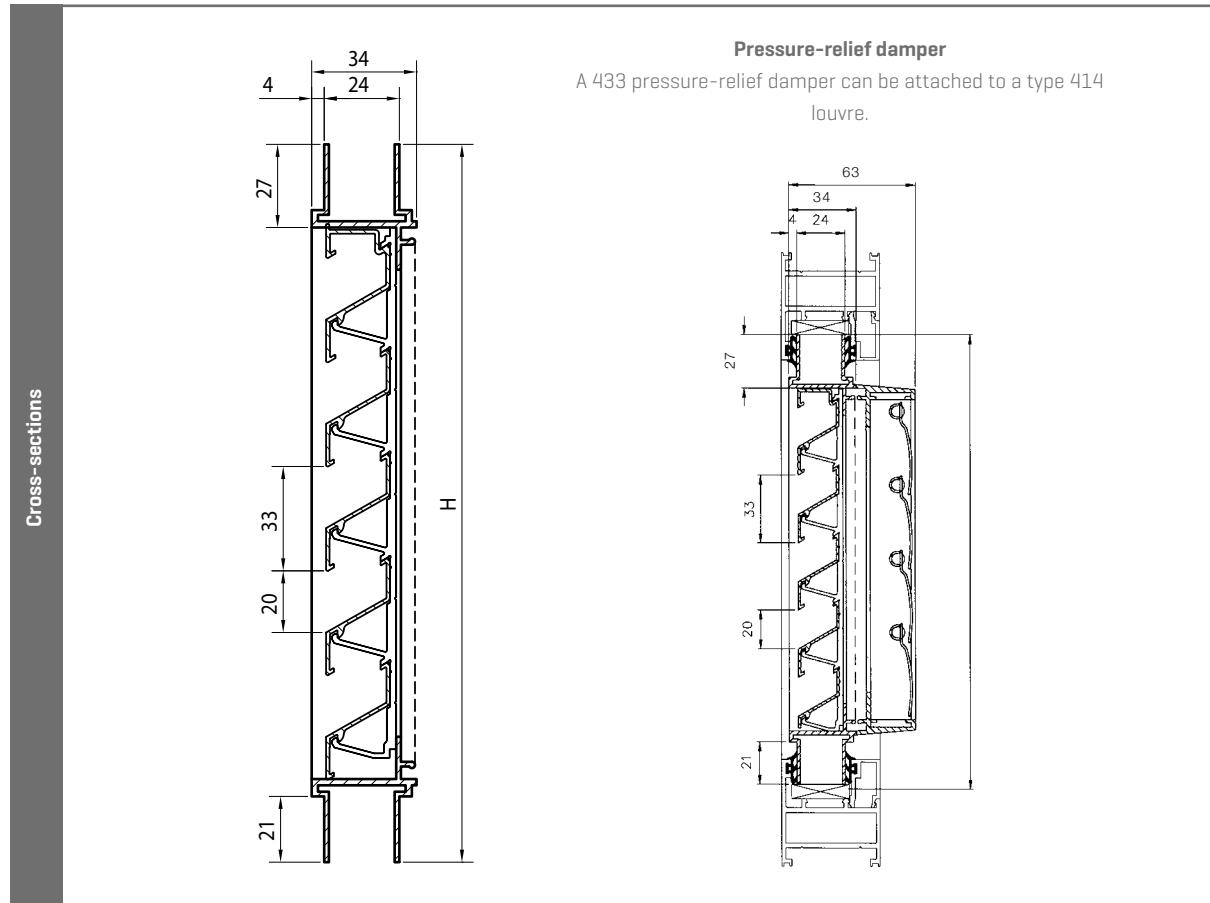
## TECHNICAL SPECIFICATIONS

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

| Weatherability   |  | [EN 13030]   |
|--|--|--------------|
| Class [details see p. 14]  |  | A4 [0.5 m/s] |
| Airflow  |  | [EN 13030]   |
| K-factor [entry]   |  | 26.30        |
| K-factor [discharge]   |  | 25.51        |
| C <sub>e</sub> coefficient   |  | 0.195        |
| C <sub>d</sub> coefficient   |  | 0.198        |
| Technical data   |  |              |
| Visual free area   |  | 59%          |
| Physical free area   |  | 45%          |
| 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

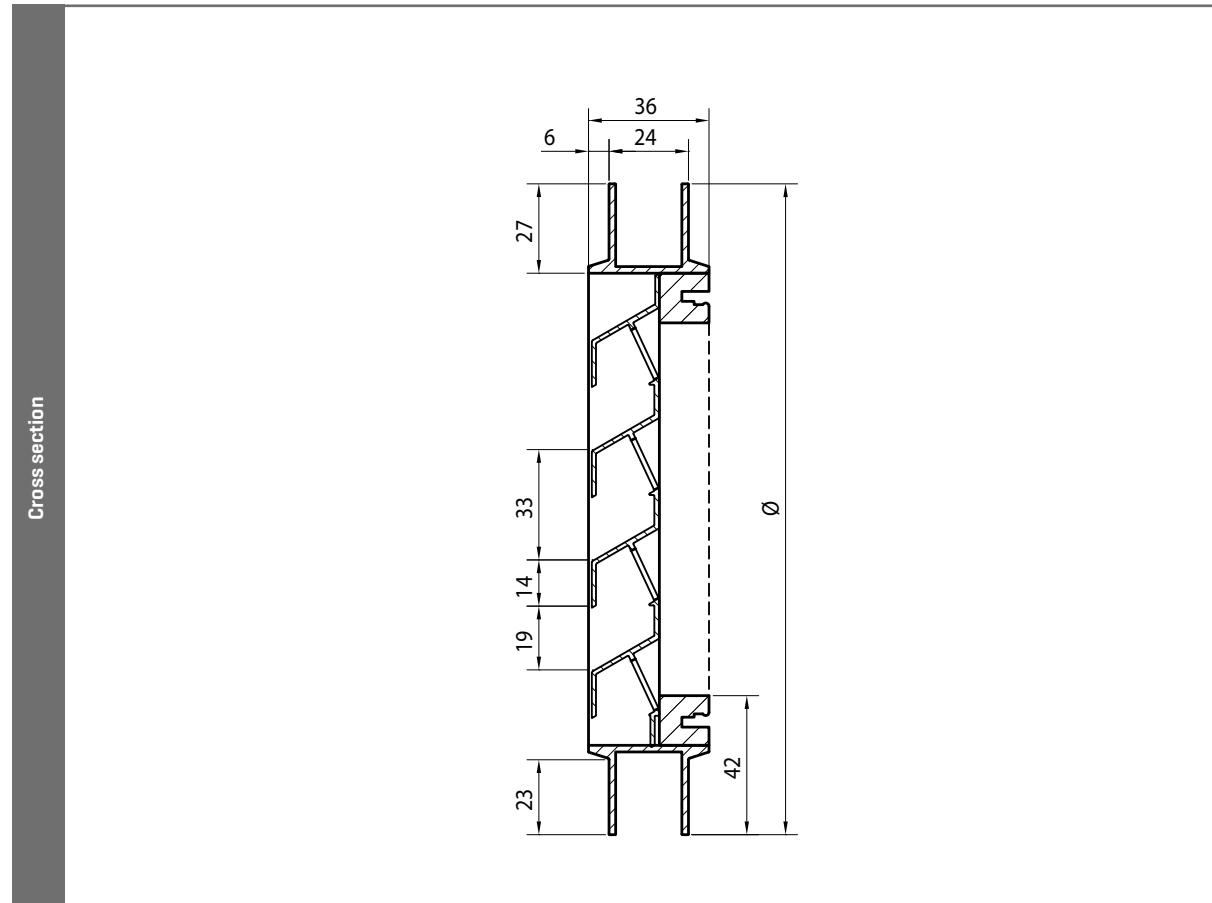
- Stainless steel 304 mesh [6x6/10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316

## 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

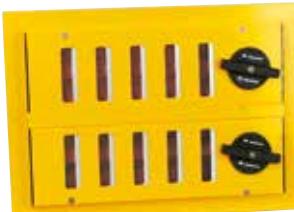


# 414VA

## 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

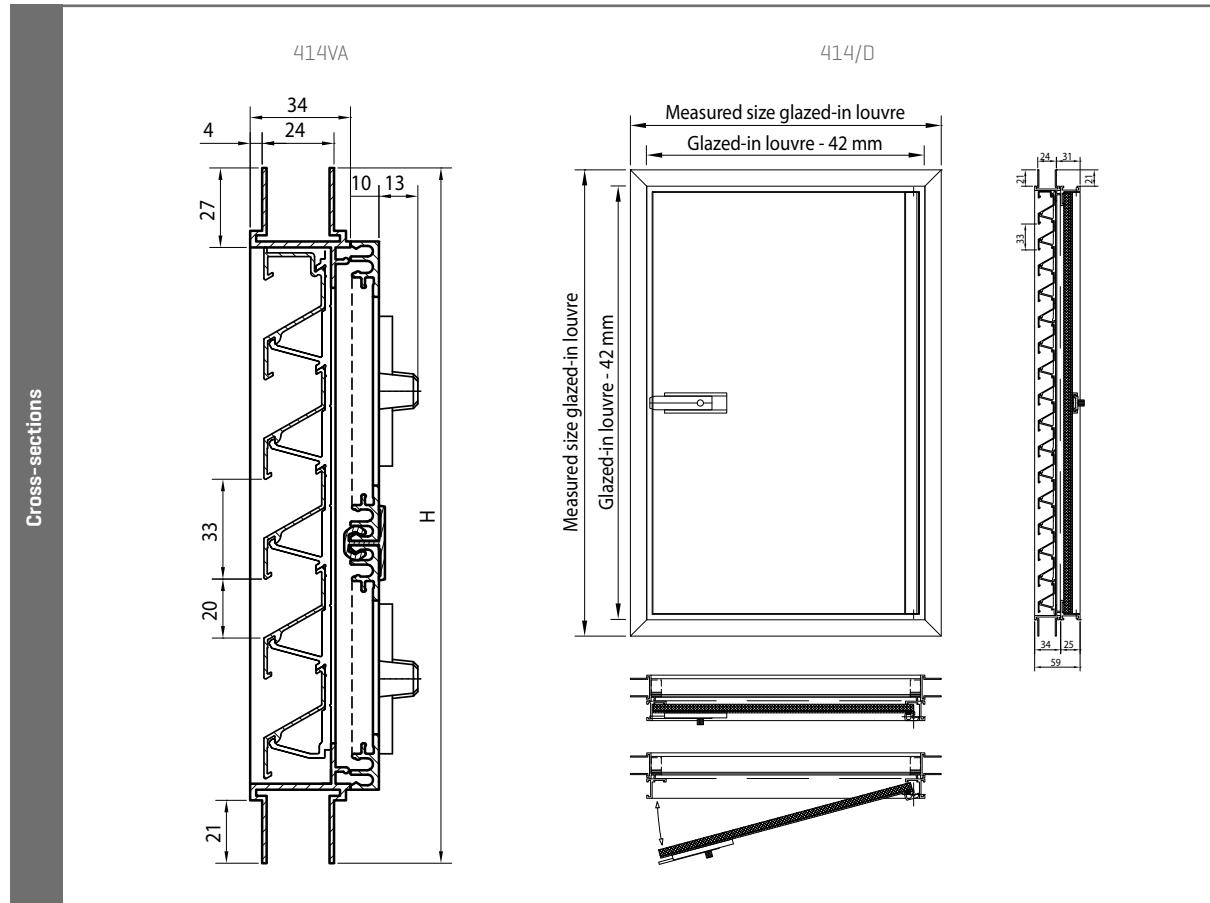
## TECHNICAL SPECIFICATIONS

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      |
| <i>(For combinations with closable louvres 130 and 150 mm)</i> |            |



## TECHNICAL DRAWINGS

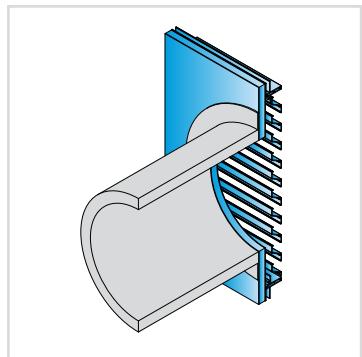
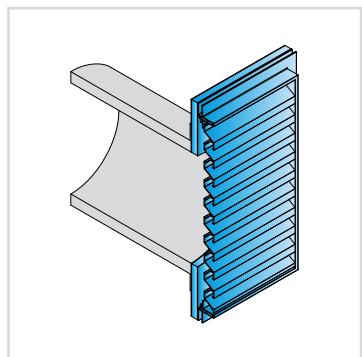


# 414THF

## 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

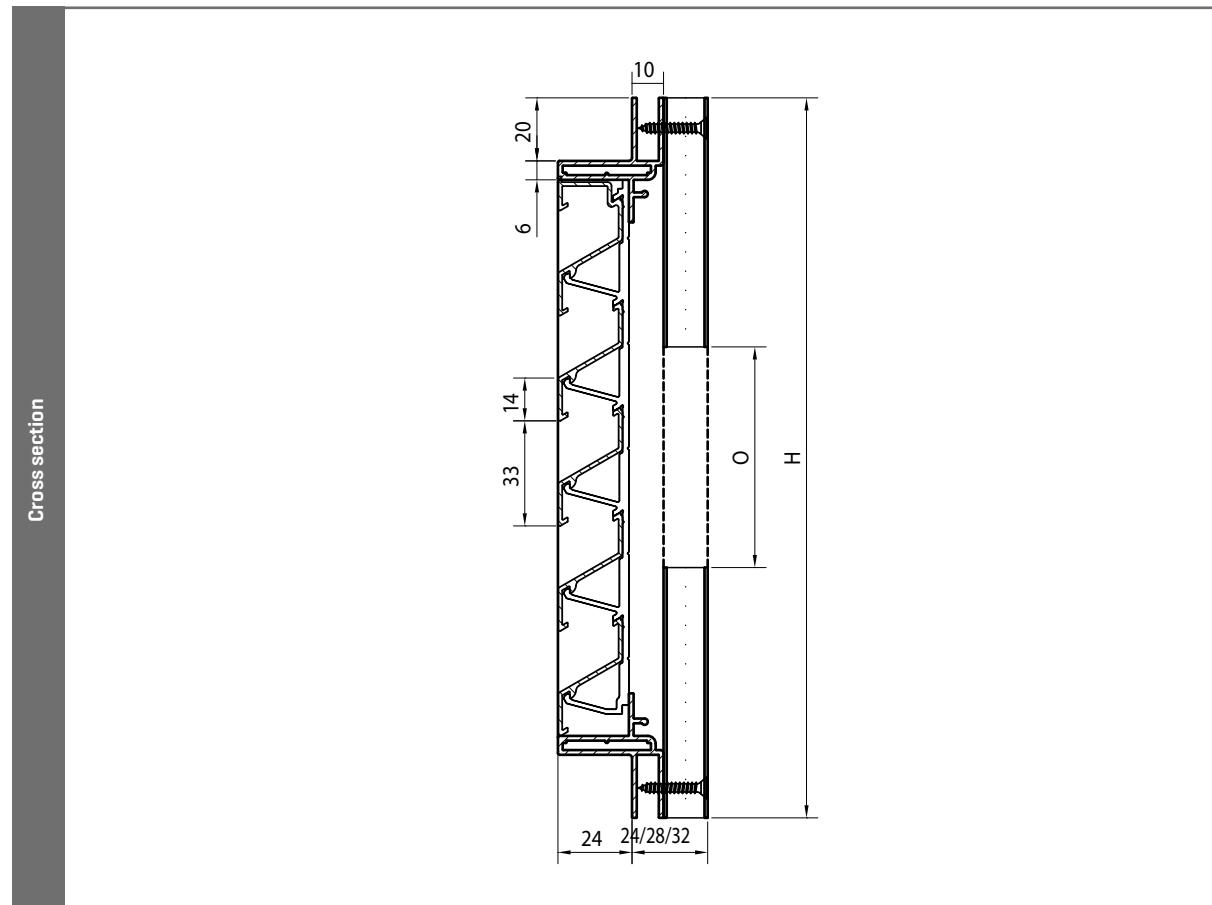
## TECHNICAL SPECIFICATIONS

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]               | 26.30                  |
| K-factor [discharge]           | 25.10                  |
| C <sub>e</sub> coefficient     | 0.195                  |
| C <sub>d</sub> coefficient     | 0.198                  |
| Technical data                 |                        |
| Visual free area               | 59 %                   |
| 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



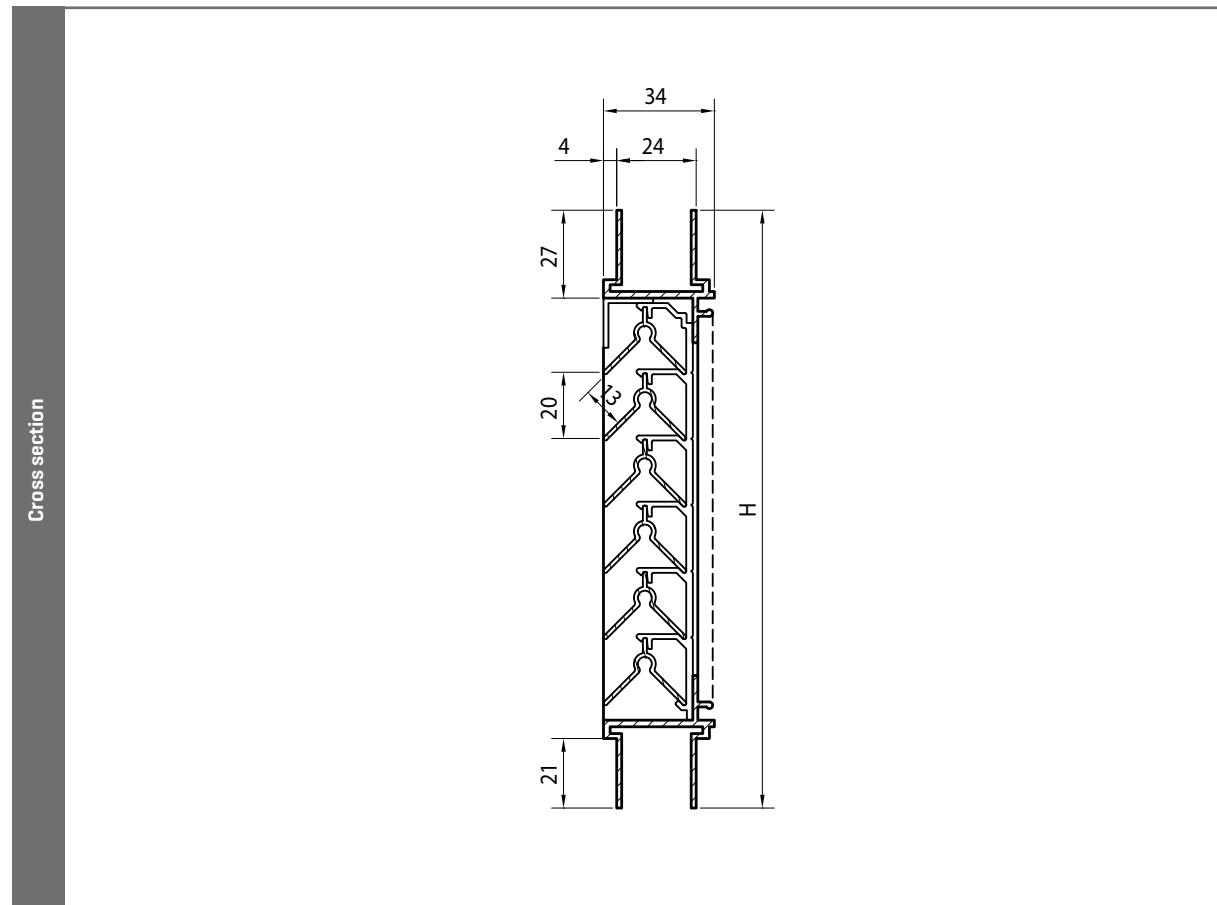
## TECHNICAL SPECIFICATIONS

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

| Weatherability  |                     | [EN 13030] |
|---|---------------------|------------|
| Class for execution with mesh 2.3x2.3 mm and water channel  | [details see p. 14] | A4 [1 m/s] |
| 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               |            |
| IP class for version with mesh 2.3x2.3 mm and water channel [electrical installation at least 350 mm] | IP44                |            |



## TECHNICAL DRAWINGS

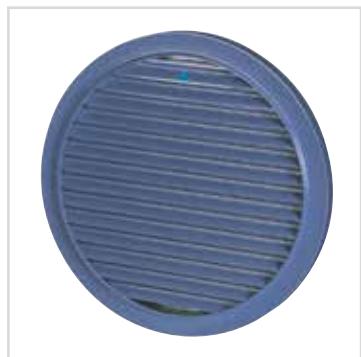


# 415R

## 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

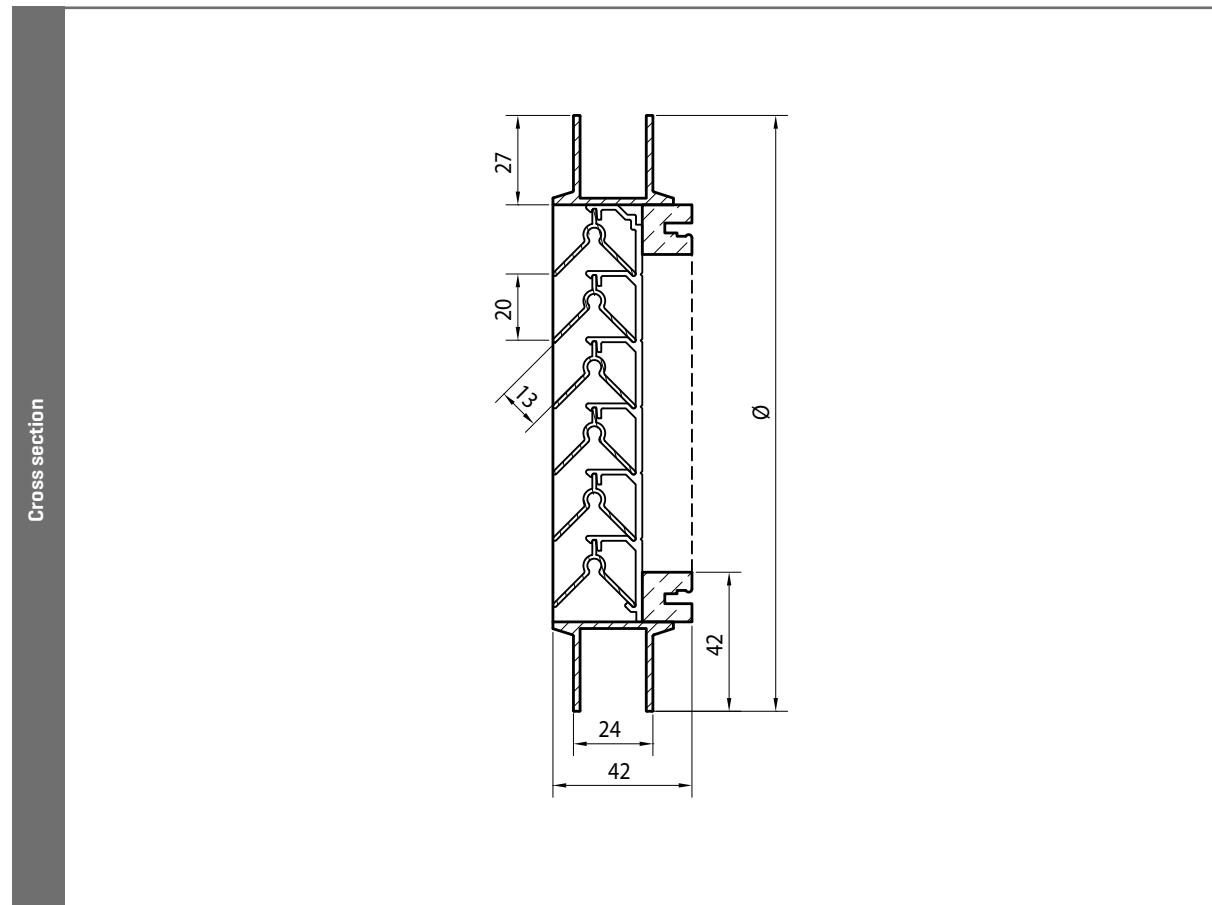


## TECHNICAL SPECIFICATIONS

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 |
| $C_e$ coefficient    | 0.170 |
| $C_d$ coefficient    | 0.170 |
| Technical data       |       |
| Visual free area     | 93%   |
| Physical free area   | 39%   |
| IP class             | IP2XD |

## TECHNICAL DRAWINGS

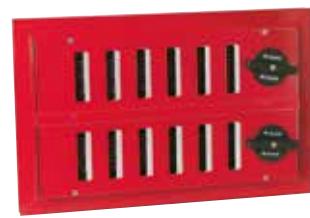


# 415VA

## 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



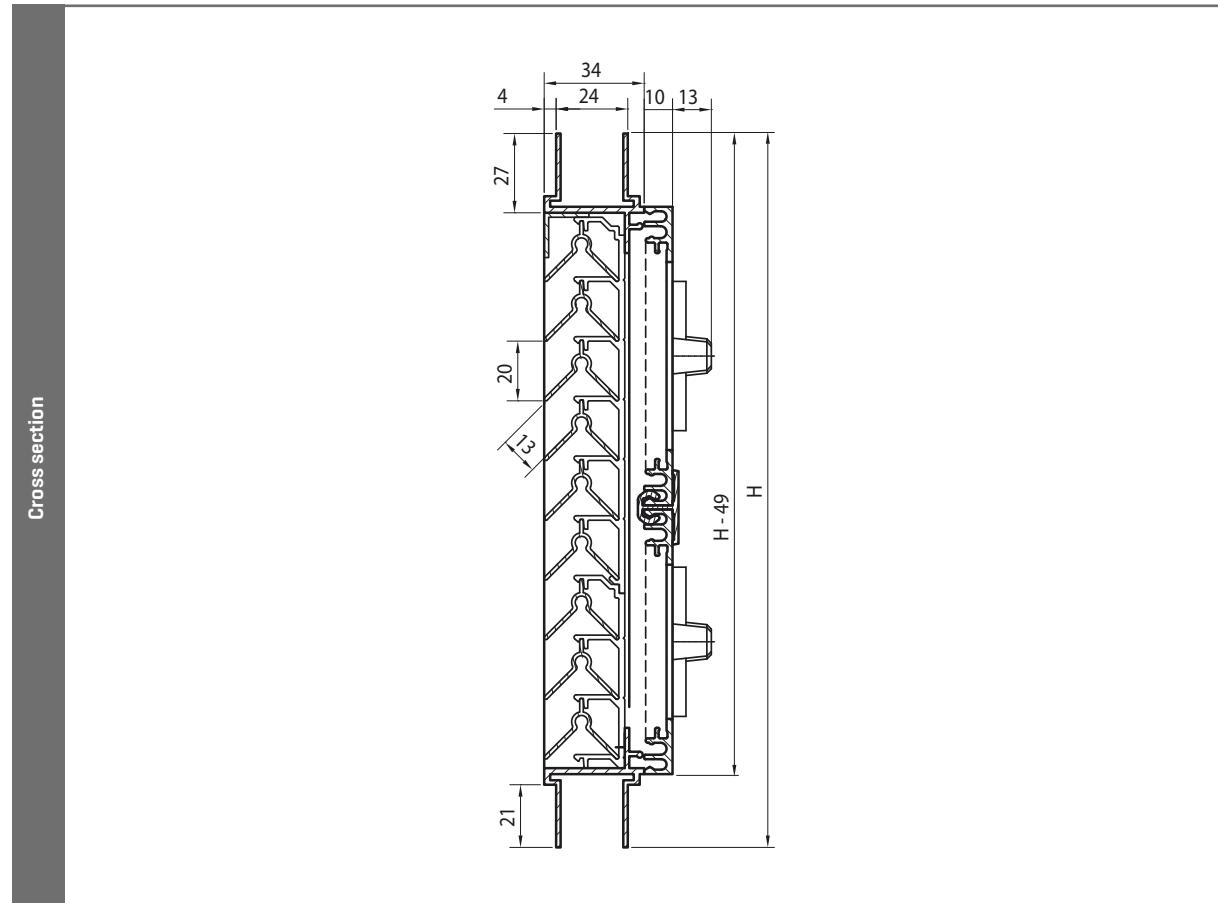
## TECHNICAL SPECIFICATIONS

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      |
| (For combinations with closable louvres 130 and 150 mm) |       |            |
| 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

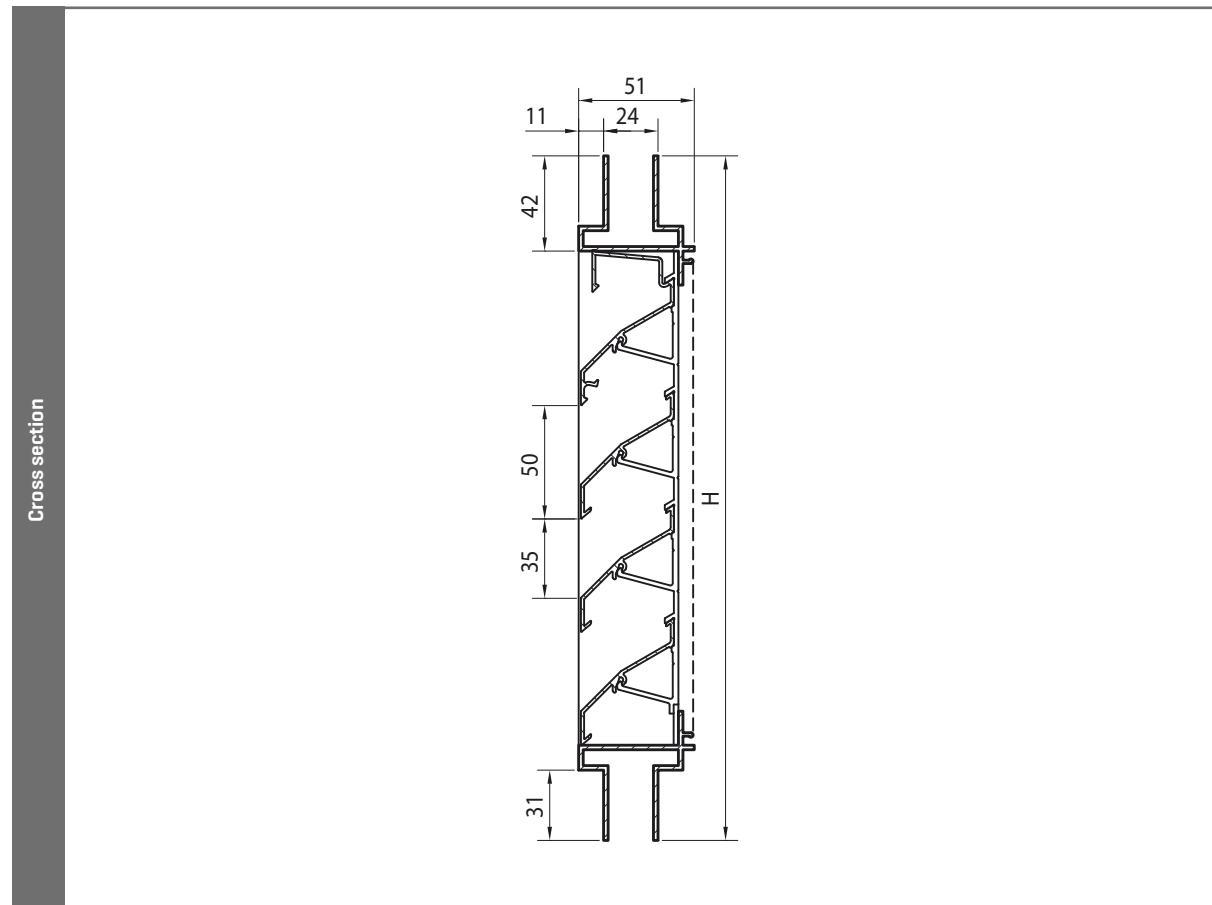
## TECHNICAL SPECIFICATIONS

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

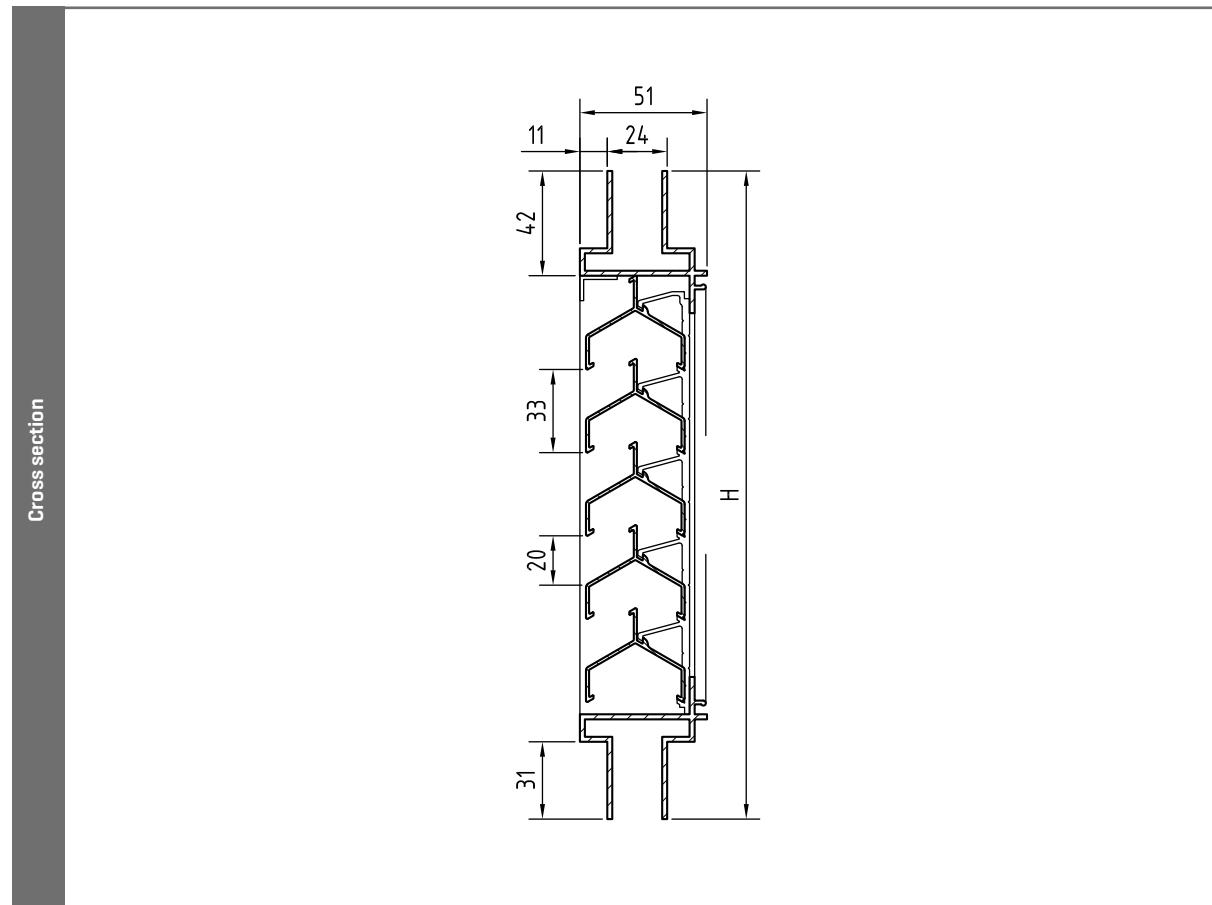


## TECHNICAL SPECIFICATIONS

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

| Weatherability  |  | [EN 13030]   |
|---|--|--------------|
| Class for execution with mesh 6x6 mm and water channel<br>(details see p. 14)                                     |  | A4 [0.5 m/s] |
| Airflow   |  | [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        |
| Technical data  |  |              |
| Visual free area  |  | 59%          |
| Physical free area  |  | 43%          |
| IP class for execution with standard mesh 2.3x2.3 mm<br>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

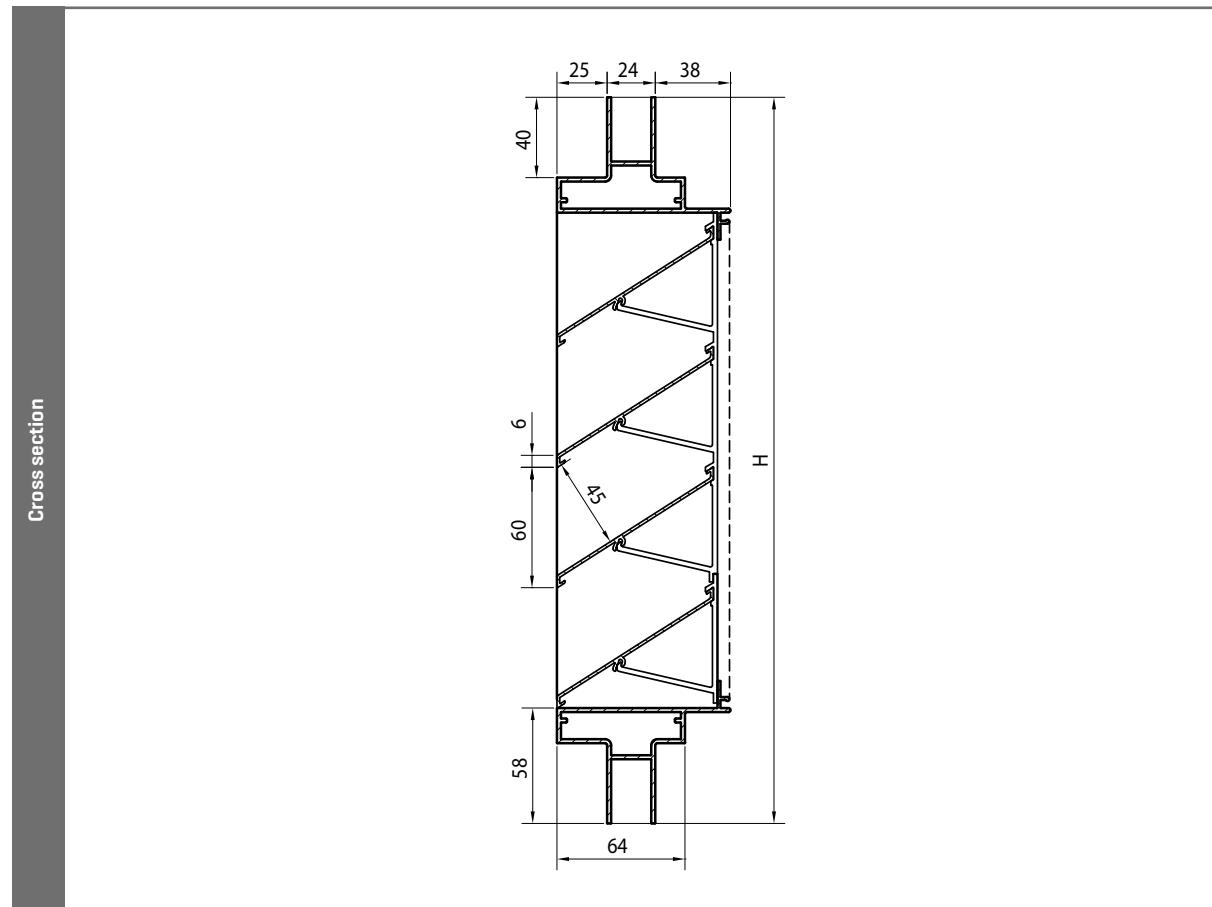


## TECHNICAL SPECIFICATIONS

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

| Airflow              |  | [EN 13030] |
|----------------------|--|------------|
| K-factor [entry]     |  | 5.03       |
| K-factor [discharge] |  | 4.96       |
| $C_e$ coefficient    |  | 0.446      |
| $C_d$ coefficient    |  | 0.449      |
| 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

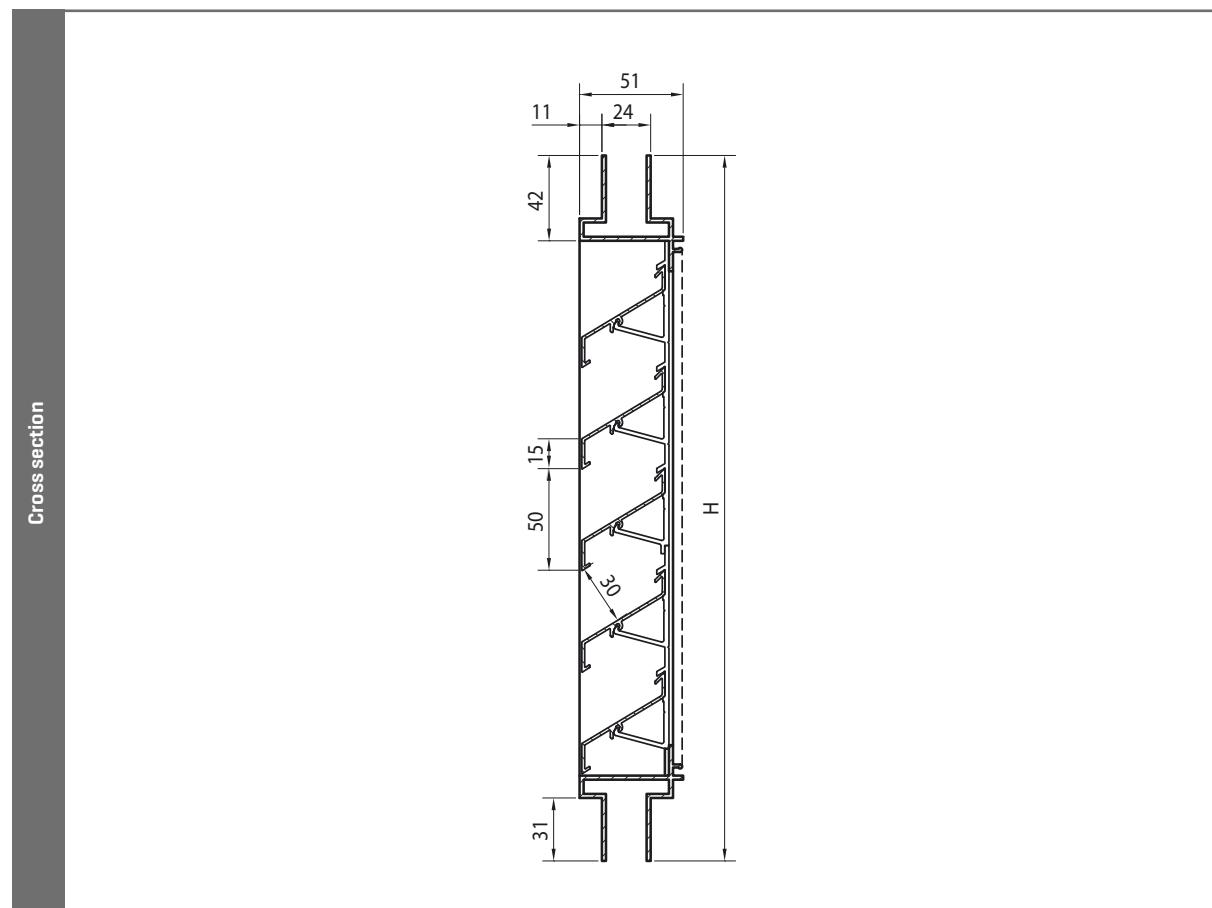
- Stainless steel 304 insect screen 2,3x2,3 or mesh [10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316
- Drainage profile
- Water channel
- Removable mesh
- Filter
- Controllable type 484/VA – same build as type 414/VA

## 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      |
| $C_e$ coefficient  |  | 0.323      |
| $C_d$ 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]

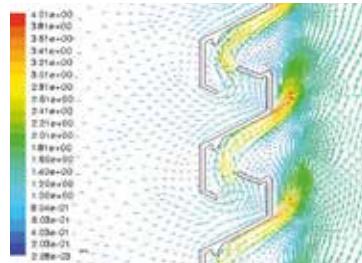


## TECHNICAL SPECIFICATIONS

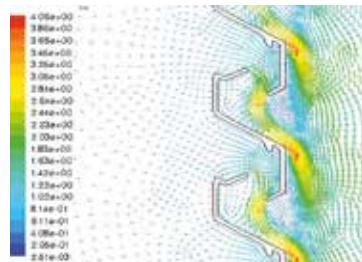
All properties are valid for the standard version of the Louvre, unless otherwise stated.

| Weatherability  |  | [EN 13030]   |
|---|--|--------------|
| Class for version with mesh 6x6 mm and water channel<br>[details see p. 14]                               |  | 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 for version with mesh 2.3x2.3 mm and water channel [electrical installation on at least 150 mm]' |  | IP2XD        |

## AIR FLOW

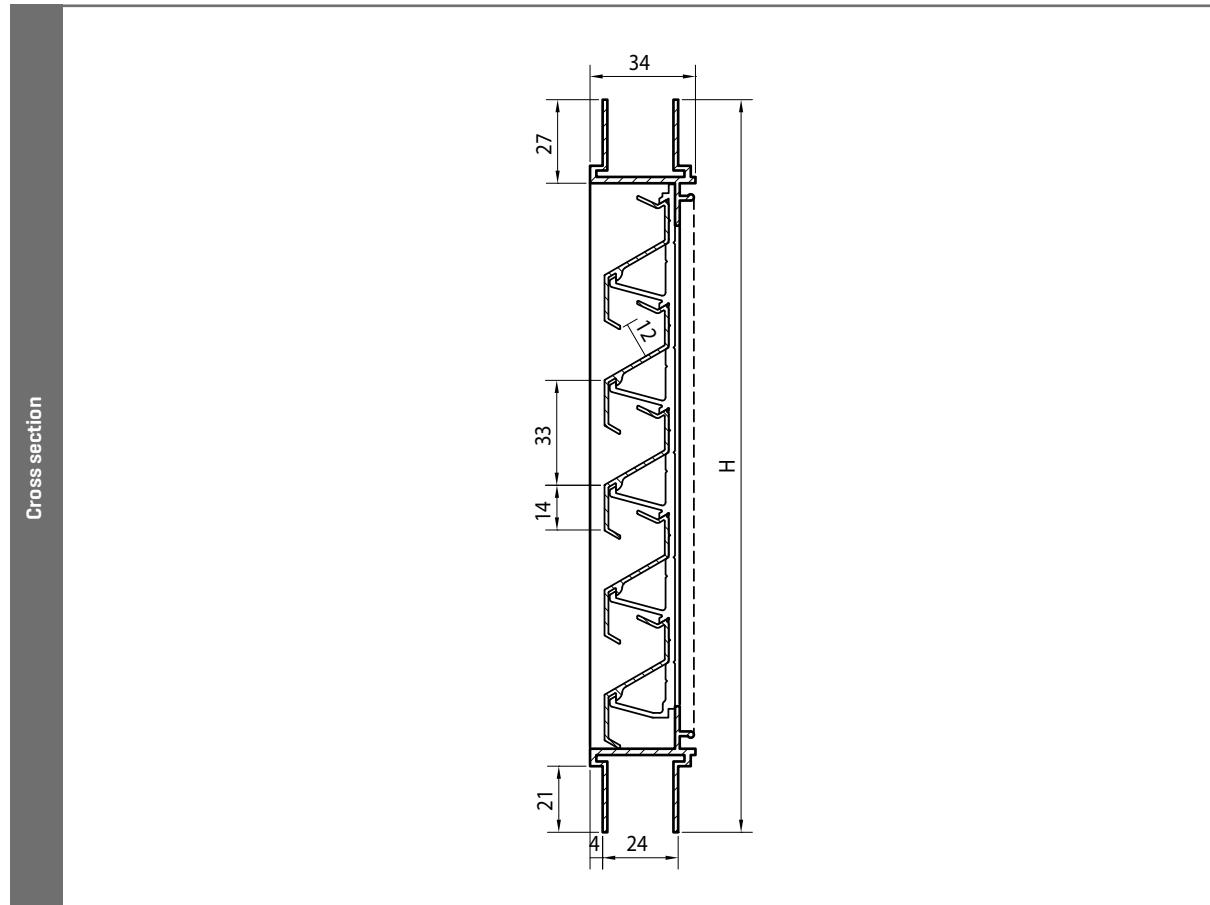


Supply



Extraction

## TECHNICAL DRAWINGS



# 425GL

Glazed-in, extra-heavy-duty 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: 95 mm
- Depth to fit: 81.5 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

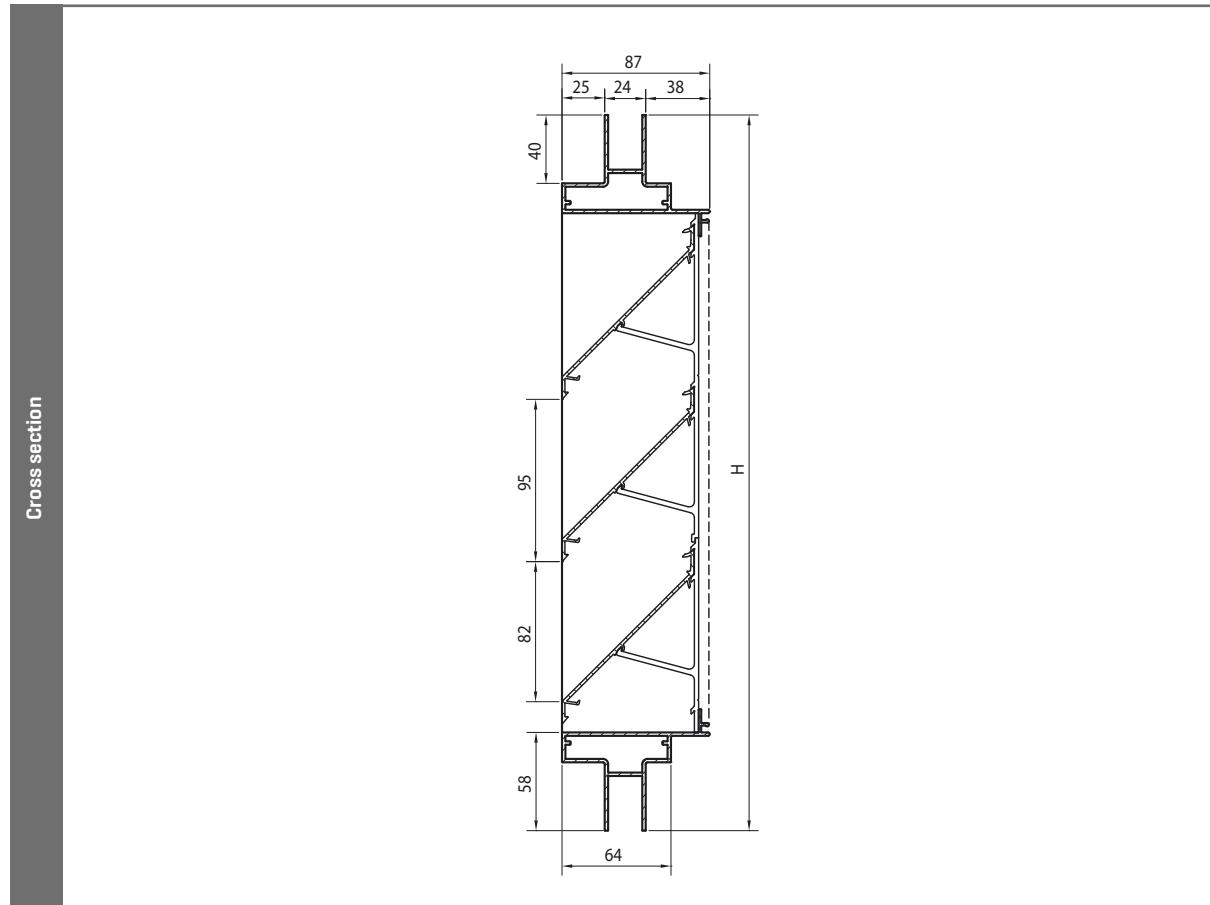
- Stainless steel 304 insect screen 2,3x2,3 or mesh [10x10/20x20 mm] or without
- Insect screen or mesh in stainless steel 316
- Water channel
- Drainage profile
- Removable mesh
- Filter

## TECHNICAL SPECIFICATIONS

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

| Airflow              |  | [EN 13030] |
|----------------------|--|------------|
| K-factor [entry]     |  | 12.40      |
| K-factor [discharge] |  | 11.65      |
| $C_e$ coefficient    |  | 0.284      |
| $C_d$ coefficient    |  | 0.293      |
| Technical data       |  |            |
| Visual free area     |  | 86%        |
| Physical free area   |  | 55%        |

## 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

*Remarque: 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

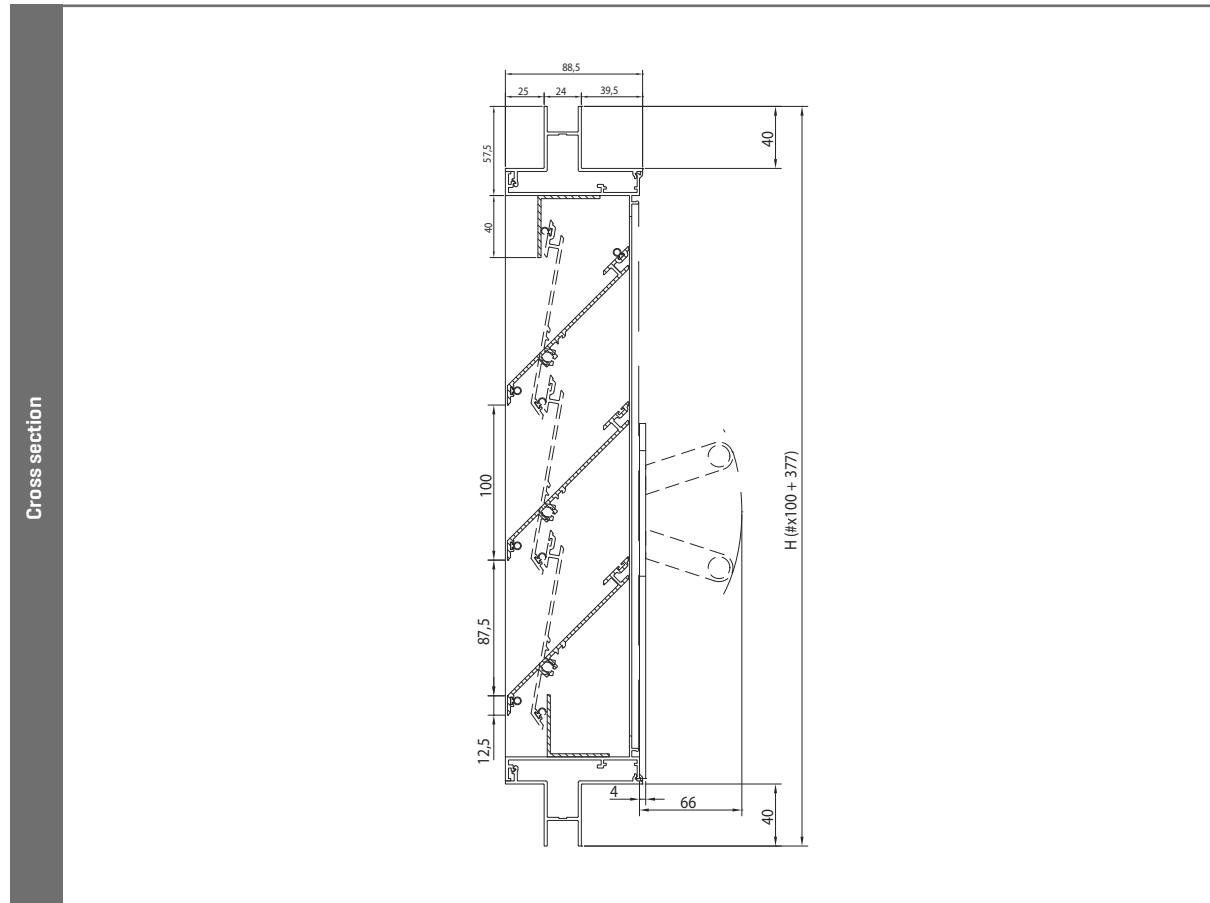
*For more information on the different control modes, please refer to p. 40 and 41.*

## 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 |
| $C_e$ coefficient    | 0.296 |
| $C_d$ 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

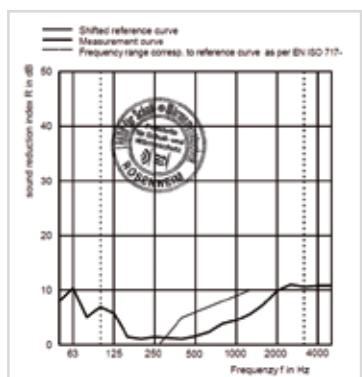
- Brackets ref. 429

### 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    |



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



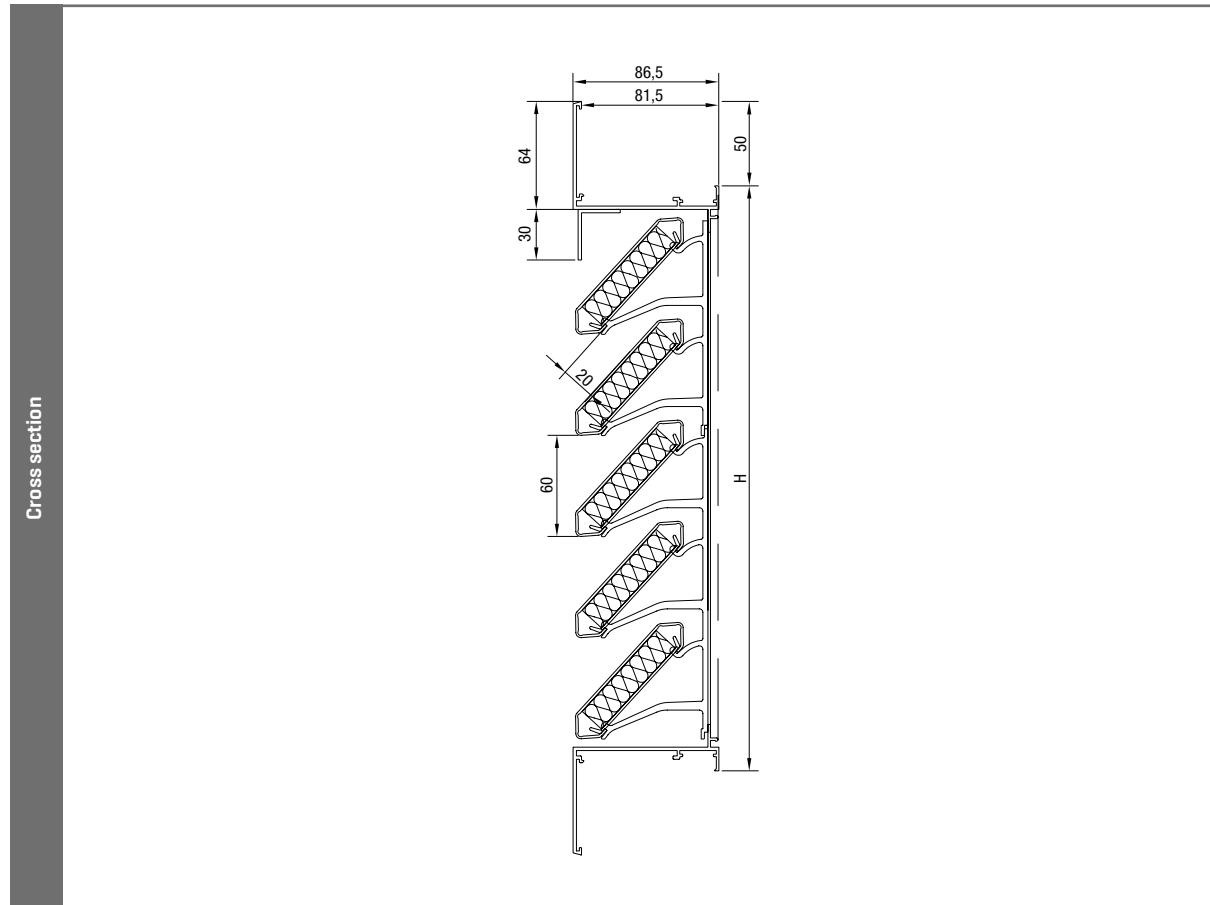
## TECHNICAL SPECIFICATIONS

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

| Airflow [EN 13030]                                   |              |
|--|--------------|
| K-factor [entry]                                     | 9.22         |
| K-factor [discharge]                                 | 13.29        |
| C <sub>e</sub> coefficient                           | 0.329        |
| C <sub>d</sub> coefficient                           | 0.274        |
| Comfort [EN ISO 140-10, EN ISO 717-1]                |              |
| Sound reduction R <sub>w</sub> [C; C <sub>tr</sub> ] | 6 [-1;-2] dB |
| Technical data                                       |              |
| Visual free area                                     | 77%          |
| Physical free area                                   | 34%          |
| Total depth  | 86 mm        |



## TECHNICAL DRAWINGS

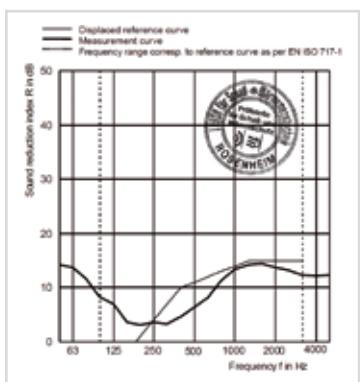


# 446/150

## Acoustic wall louvre

SOUND-  
REDUCTION  
LOUVRE

ALUMINIUM



### 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

- 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
- Drainage profile



## TECHNICAL SPECIFICATIONS

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

| Weatherability                                      |  | [EN 13030]                    |
|---|--|-------------------------------|
| Class [details see p. 14]                           |  | A4 [0 m/s]                    |
| Airflow   |  | [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                         |
| Comfort   |  | [EN ISO 140-10, EN ISO 717-1] |
| Sound reduction R <sub>w</sub> [C;C <sub>tr</sub> ] |  | 11 [-1;-2] dB                 |
| Technical data                                      |  |                               |
| Visual free area                                    |  | 54%                           |
| Physical free area                                  |  | 34%                           |
| Waterproof  |  | A [0 m/s]                     |
| Total depth   |  | 150 mm                        |

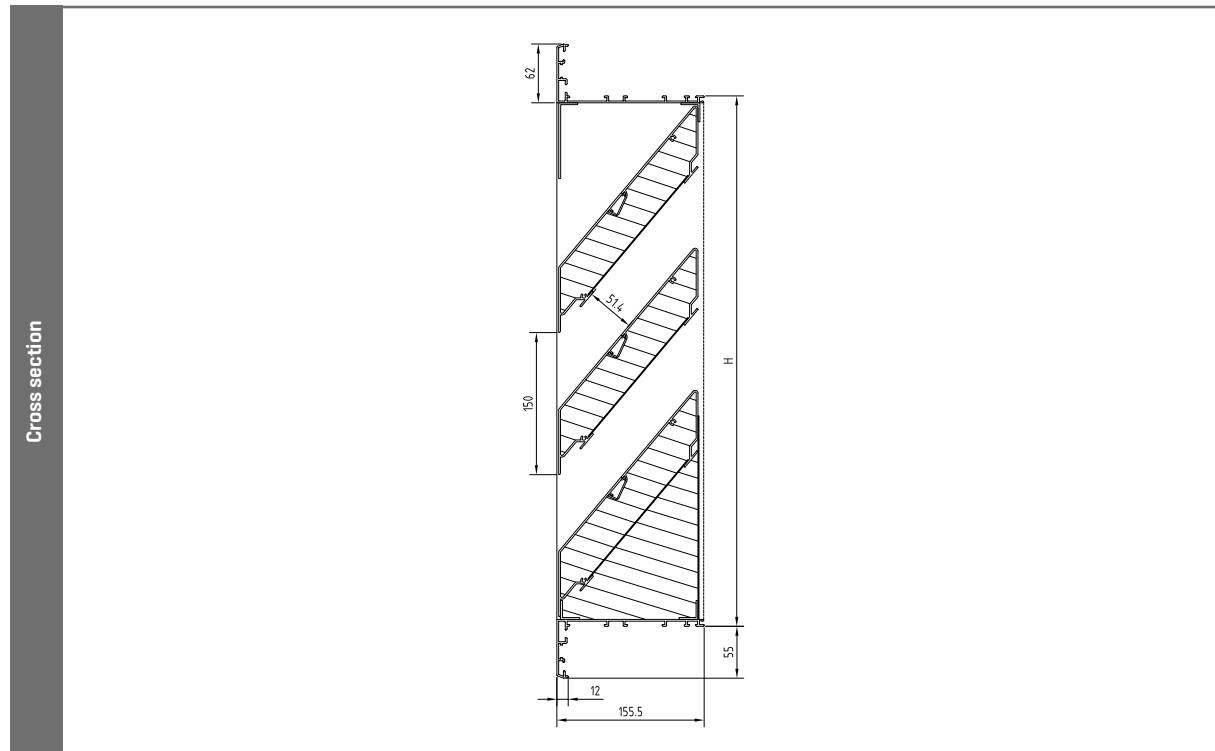


Section detail

## 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

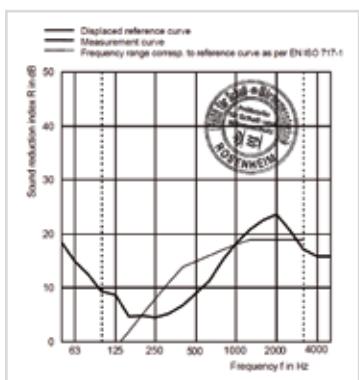


# 446/225

## Acoustic wall louvre

SOUND-  
REDUCTION  
LOUVRE

ALUMINIUM



### 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

- 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
- Drainage profile



## TECHNICAL SPECIFICATIONS

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

| Weatherability                                      |  | [EN 13030]                    |
|---|--|-------------------------------|
| Class [details see p. 14]                           |  | A4 [0 m/s]                    |
| Airflow   |  | [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                         |
| Comfort   |  | [EN ISO 140-10, EN ISO 717-1] |
| Sound reduction R <sub>w</sub> [C;C <sub>tr</sub> ] |  | 15 [-1;-4] dB                 |
| Technical data                                      |  |                               |
| Visual free area                                    |  | 54%                           |
| Physical free area                                  |  | 34%                           |
| Waterproof  |  | A [1 m/s]                     |
| Total depth   |  | 225 mm                        |

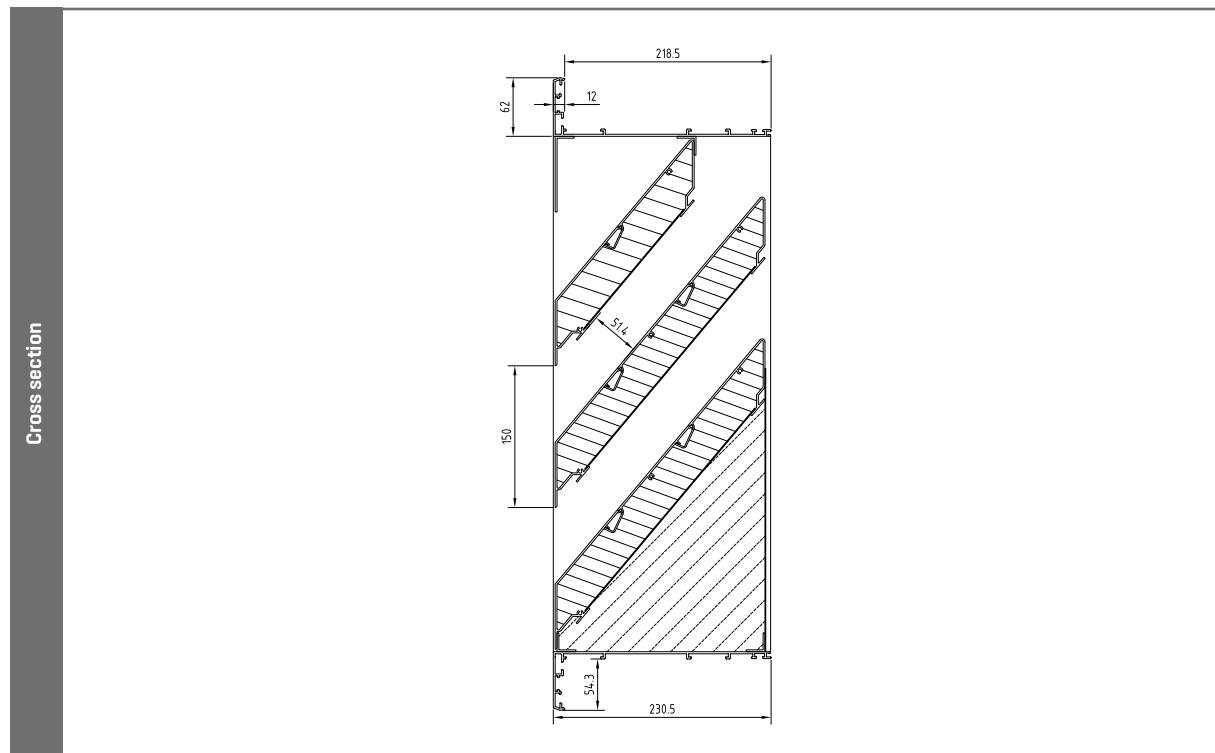


Section detail

## 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

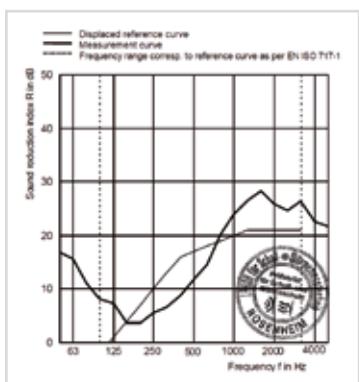


# 446/300

## Acoustic wall louvre

SOUND-  
REDUCTION  
LOUVRE

ALUMINIUM



### 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

- 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
- Drainage profile



## TECHNICAL SPECIFICATIONS

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

| Weatherability                                      |  | [EN 13030]                    |
|---|--|-------------------------------|
| Class [details see p. 14]                           |  | A4 [0 m/s]                    |
| Airflow   |  | [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                         |
| Comfort   |  | [EN ISO 140-10, EN ISO 717-1] |
| Sound reduction R <sub>w</sub> [C;C <sub>tr</sub> ] |  | 17 [-1;-4] dB                 |
| Technical data                                      |  |                               |
| Visual free area                                    |  | 54%                           |
| Physical free area                                  |  | 34%                           |
| Waterproof  |  | A [1 m/s]                     |
| Total depth   |  | 300 mm                        |

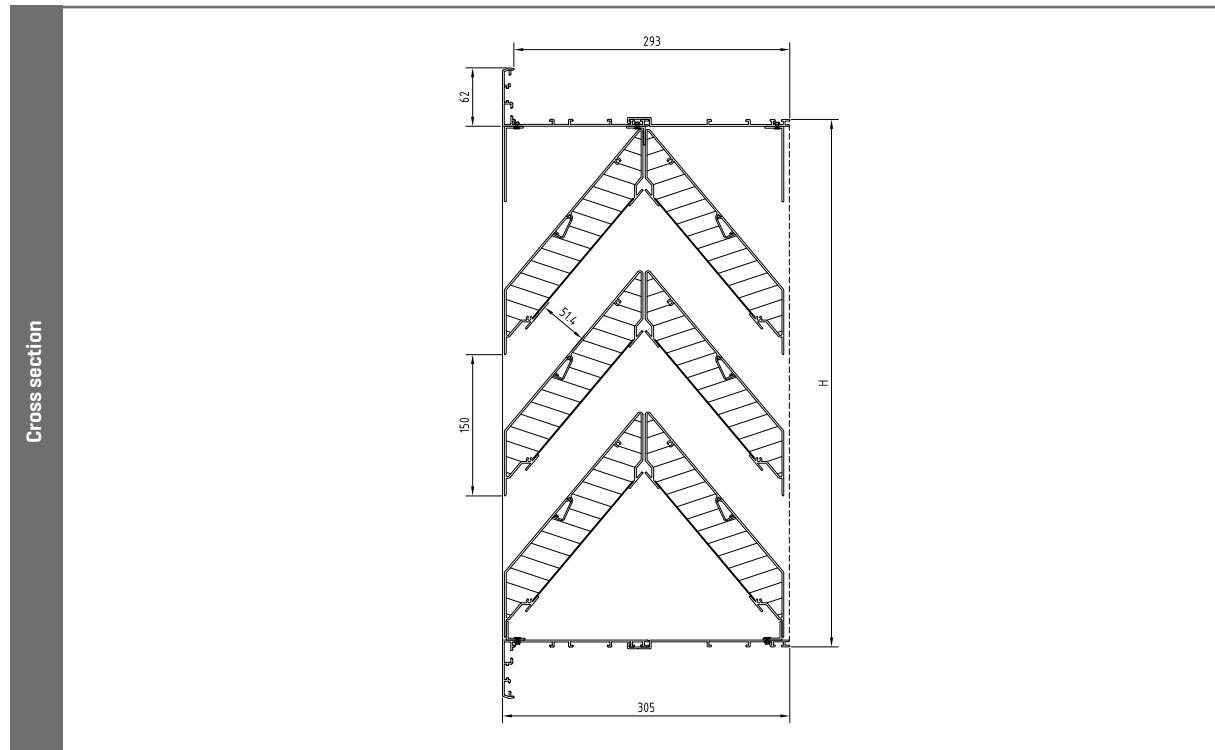


Section detail

## 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

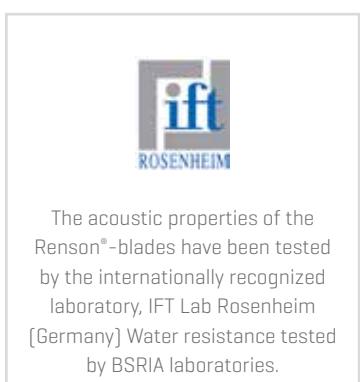
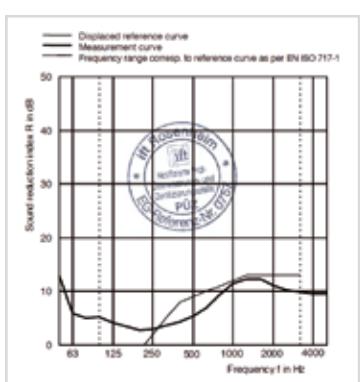


# 447/150

## Acoustic wall louvre

SOUND-  
REDUCTION  
LOUVRE

ALUMINIUM



### 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 structu-ral 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

- 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
- Drainage profile



## 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>tr</sub> ] |  | 9 [0;-1] dB                   |
| Technical data                                       |  |                               |
| Visual free area                                     |  | 59%                           |
| Physical free area                                   |  | 37%                           |
| Total depth  |  | 150 mm                        |

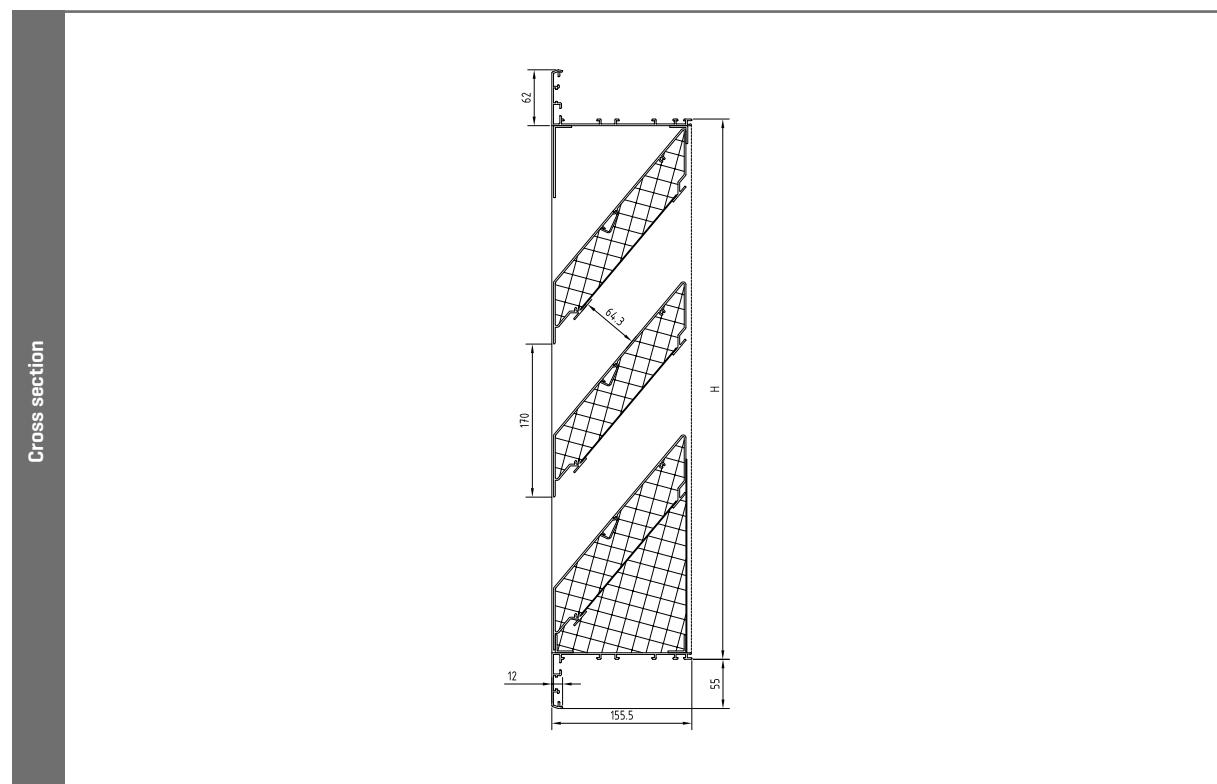


Section detail

## 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

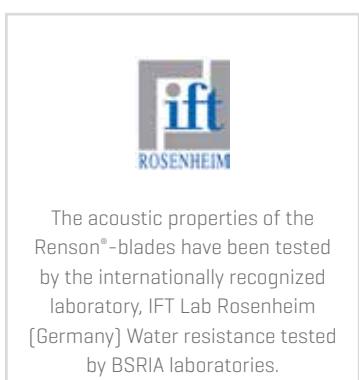
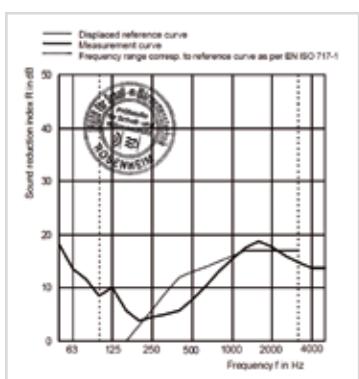


# 447/225

## Acoustic wall louvre

SOUND-  
REDUCTION  
LOUVRE

ALUMINIUM



### 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 structu-ral 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

- 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
- Drainage profile



## 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>tr</sub> ] |  | 13 [-1;-3] dB                 |
| Technical data                                       |  |                               |
| Visual free area                                     |  | 59%                           |
| Physical free area                                   |  | 37%                           |
| Total depth  |  | 225 mm                        |

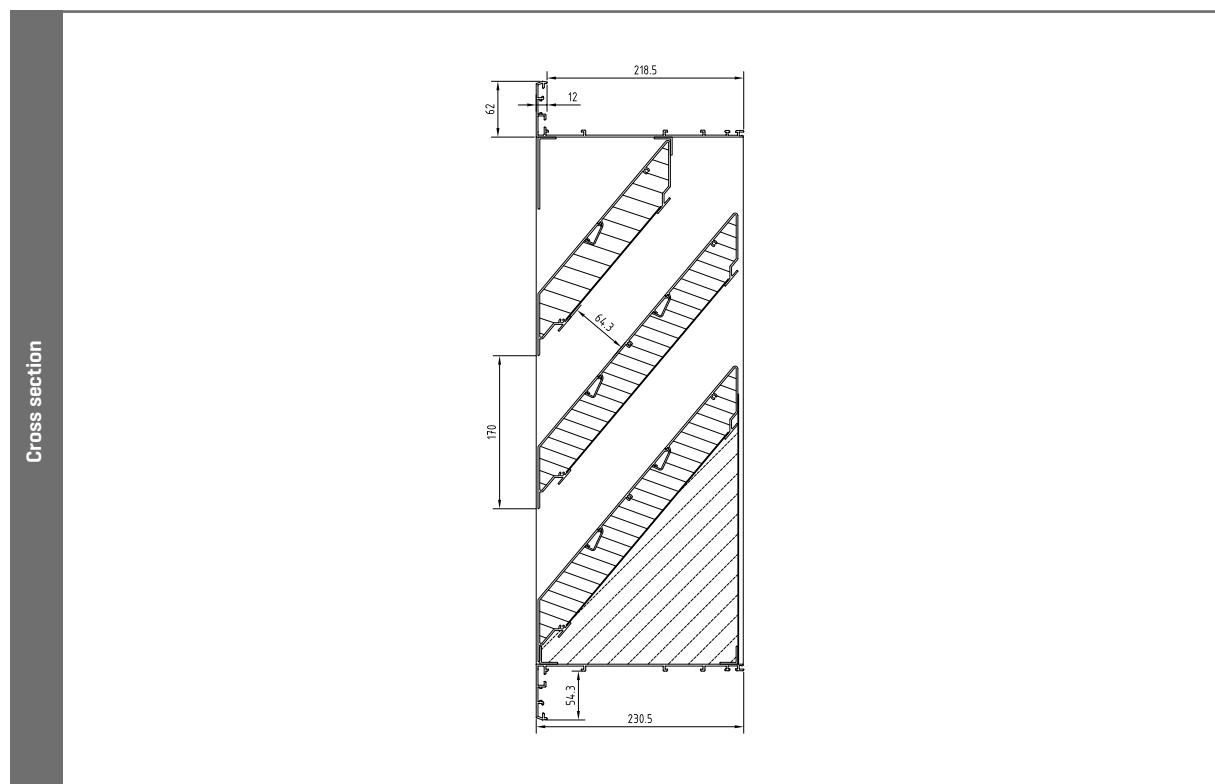


Section detail

## 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



# 421RC2

## 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 insectmesh
- Filter

### FEATURES

- Aesthetical and functional high-quality louvre
- Burglar resistance according to class RC2, certificate surface 0.44 <0 <6 m<sup>2</sup>, 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

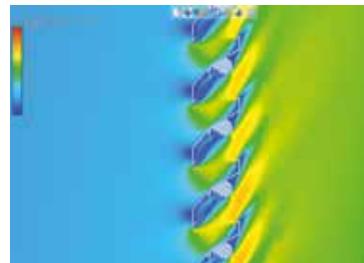


## TECHNICAL SPECIFICATIONS

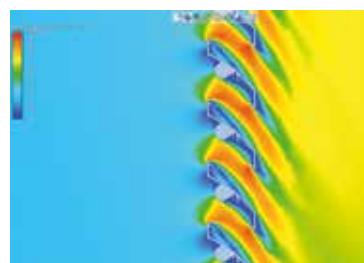
All properties are valid for the standard version of the Louvre, unless otherwise stated.

| Airflow  |  | [EN 13030] |
|--|--|------------|
| K-factor [entry]   |  | 13.82      |
| K-factor [discharge]   |  | 12.85      |
| $C_e$ coefficient  |  | 0.269      |
| $C_d$ 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

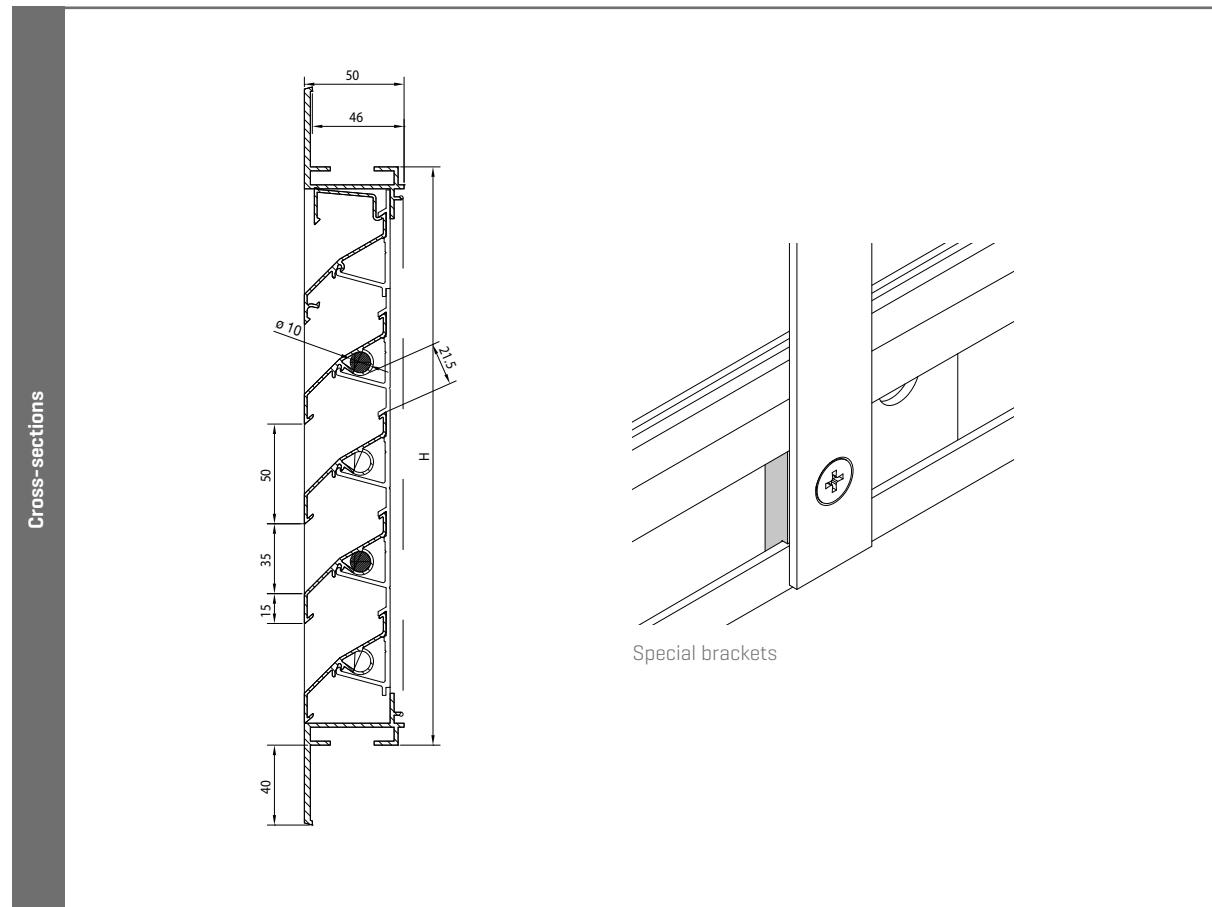


Supply



Extraction

## TECHNICAL DRAWINGS



# 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



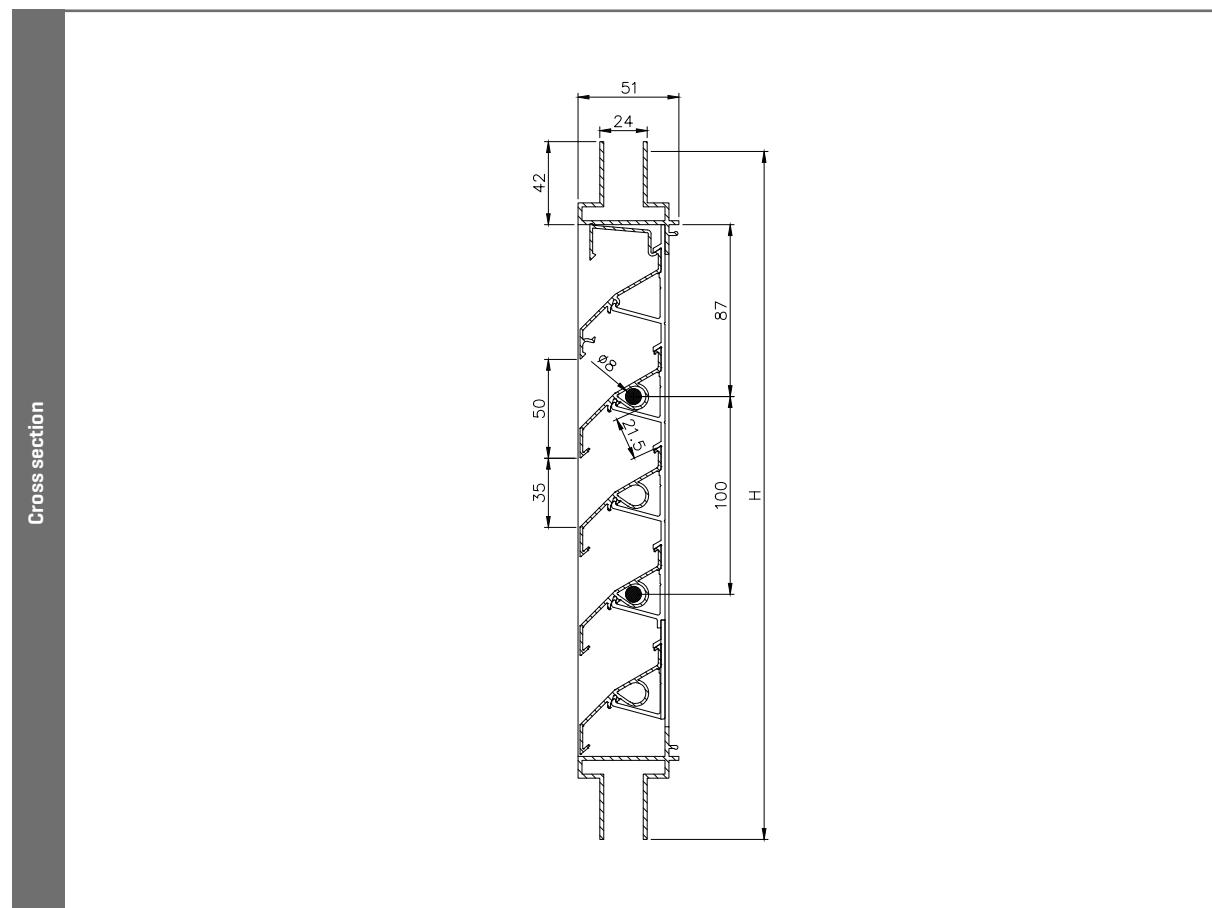
## TECHNICAL SPECIFICATIONS

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

## 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: 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, certificate surface 0.27 <math>\text{<} \text{o} < 2.075 \text{ m}^2</math>, in accordance with EN 1627 up to 1630 and including [Sept. 2011]
- 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



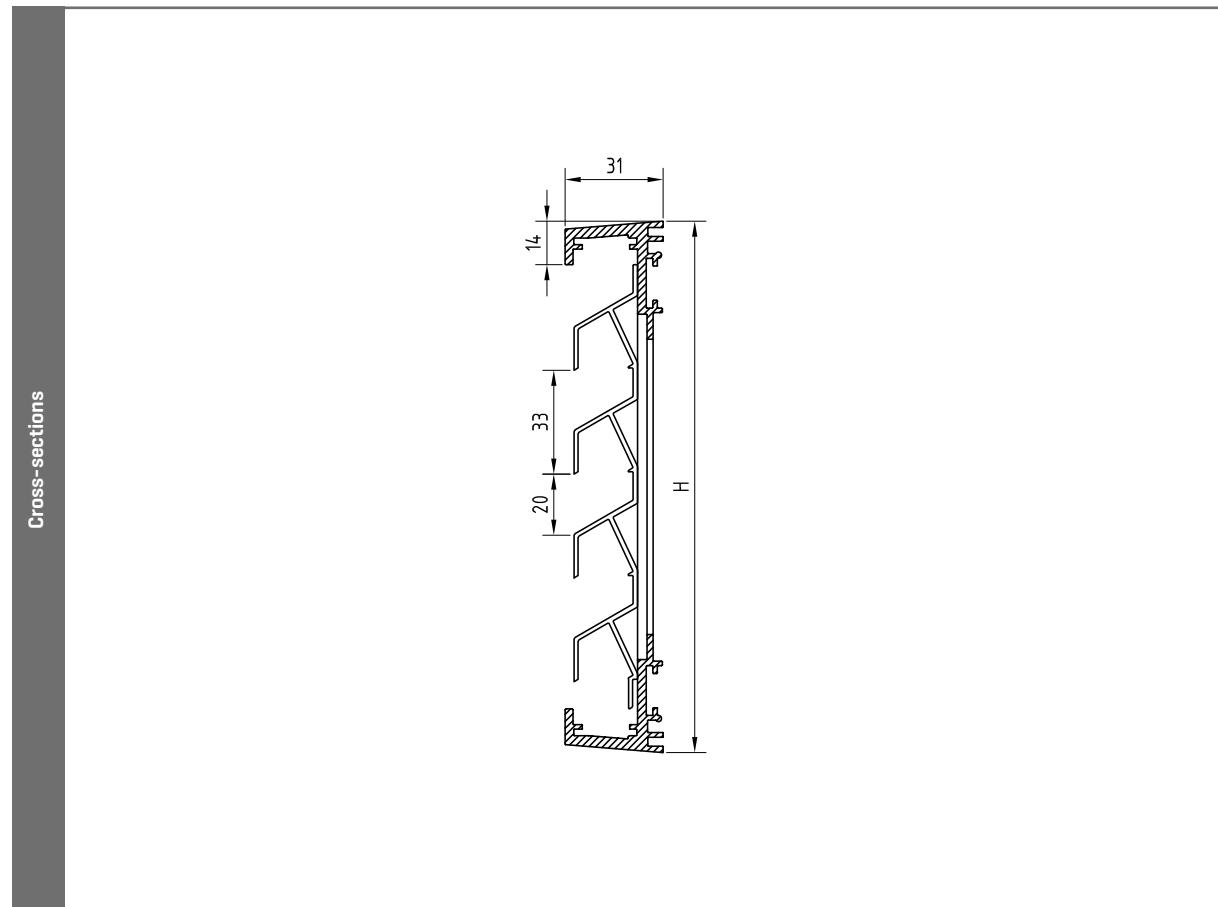
## TECHNICAL SPECIFICATIONS

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



# 421RC3

## 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  $0.44 < o < 6 \text{ m}^2$ , 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



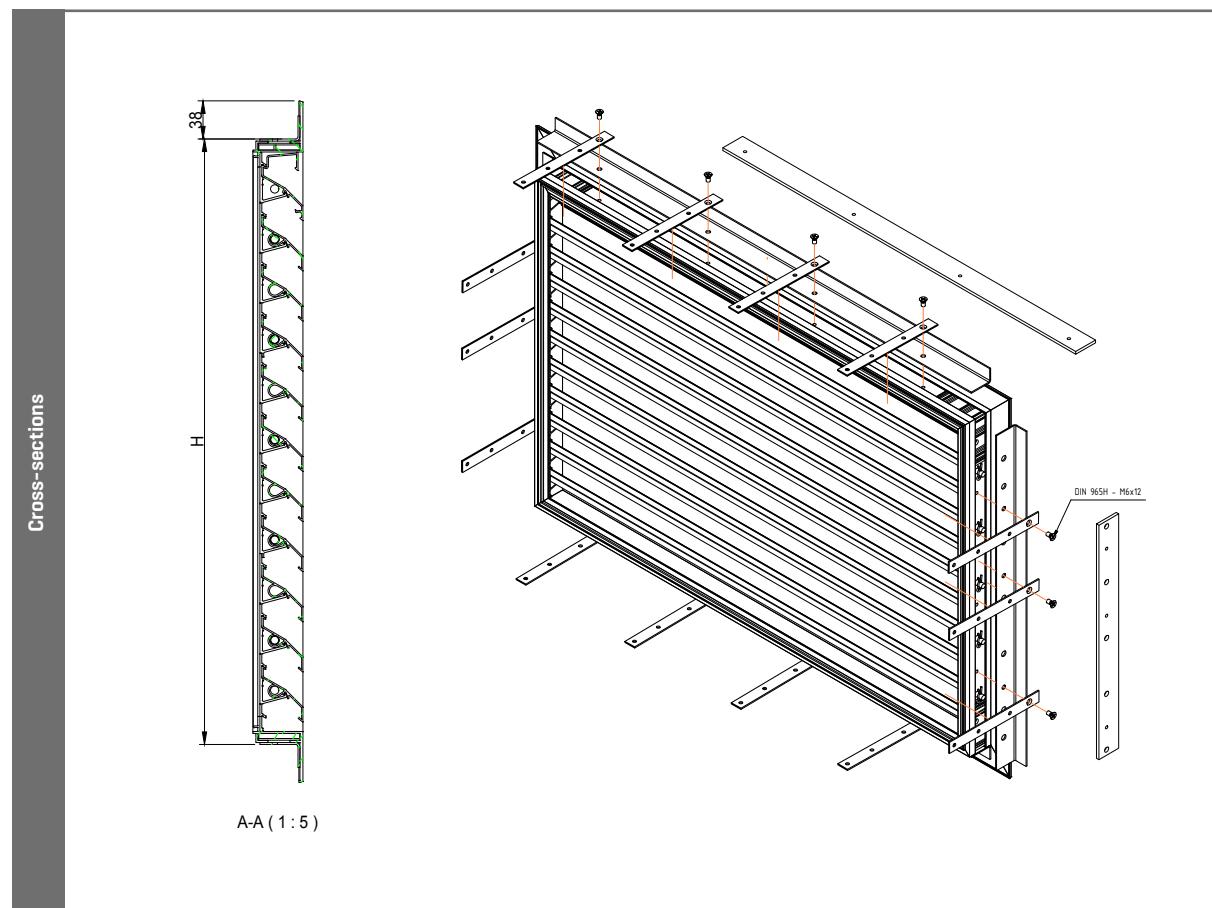
## TECHNICAL SPECIFICATIONS

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
- Burglar resistance class RC4, in accordance with EN 1627 up to 1630 and including [Sept. 2011]
- Official test report No. DE78A982

### TYPICAL APPLICATIONS

- Banks, IT rooms, museums and jewellers.



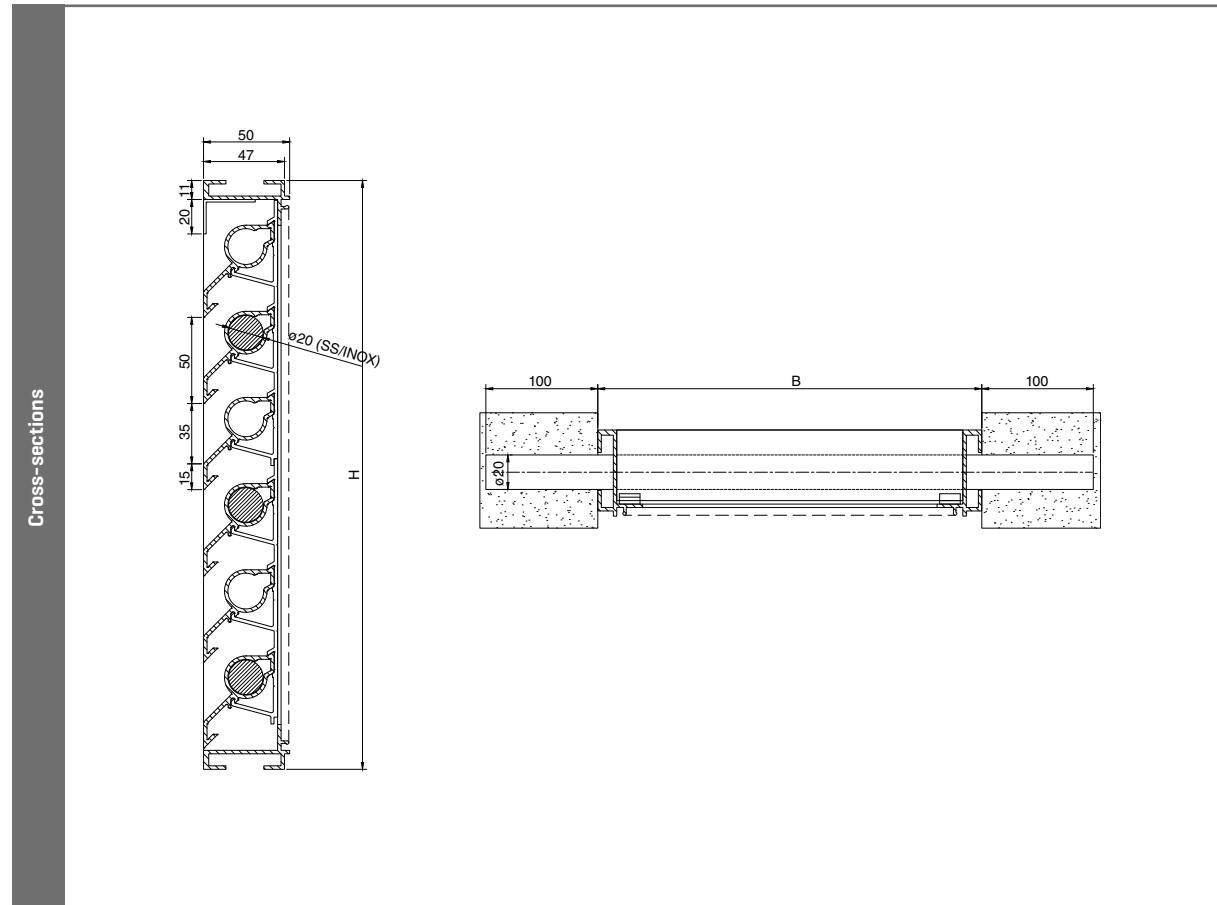
## TECHNICAL SPECIFICATIONS

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 n° 8 of louvre 411 [blade pitch 33 mm]
- 440/21: with blade n° 17 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

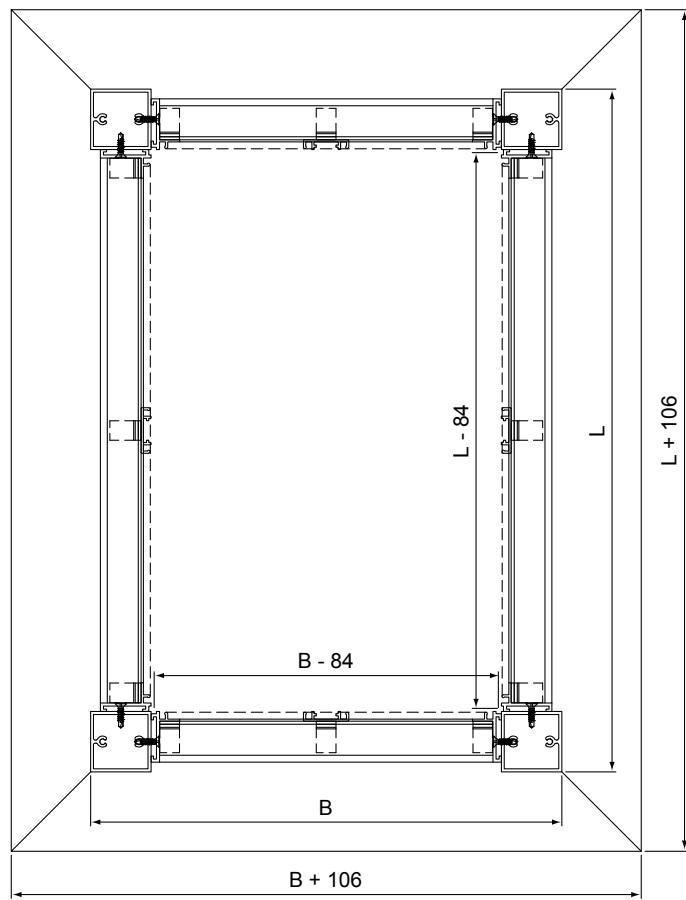
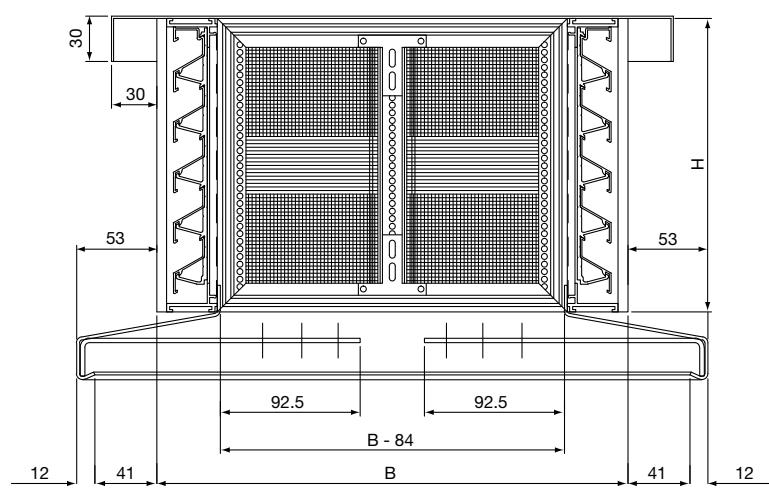
- Water channel

### TYPICAL APPLICATIONS

- Office ventilation [Nightcooling]
- Manufacturing plants

## TECHNICAL DRAWINGS

Cross-sections



# 311

## Convector 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

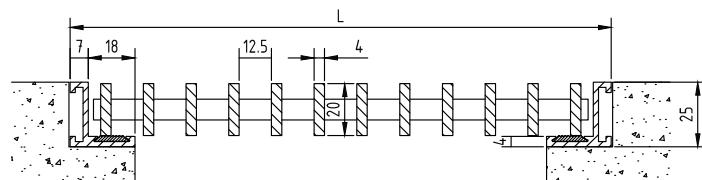
All properties are valid for the standard version of the Louvre, unless otherwise stated.

### Technical data

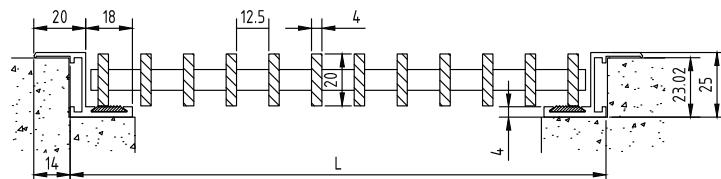
|                    |     |
|--------------------|-----|
| Visual free area   | 76% |
| Physical free area | 76% |

## TECHNICAL DRAWINGS

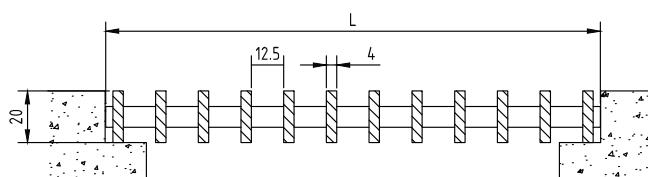
### Cross-sections



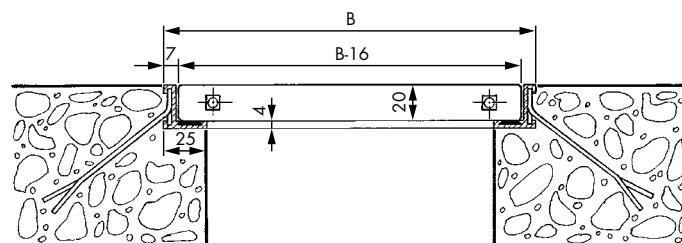
311/1: Floor grille or convector cover with flangeless "L" frame



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.*

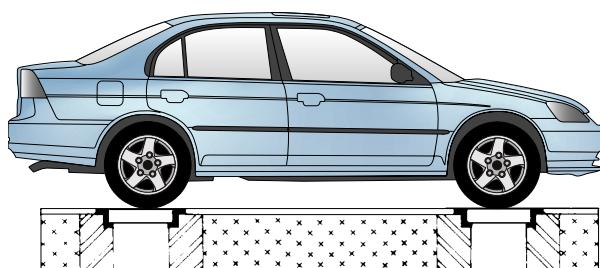
- Effective opening = length and width - 50 mm
- Bars arranged crosswise

### 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

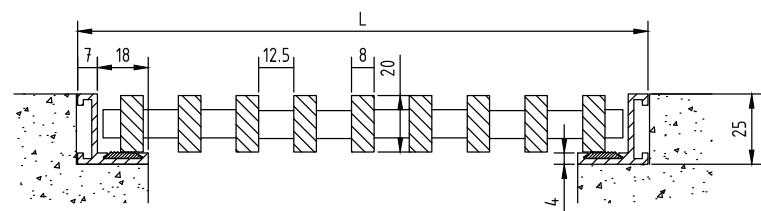
All properties are valid for the standard version of the Louvre, unless otherwise stated.

### Technical data

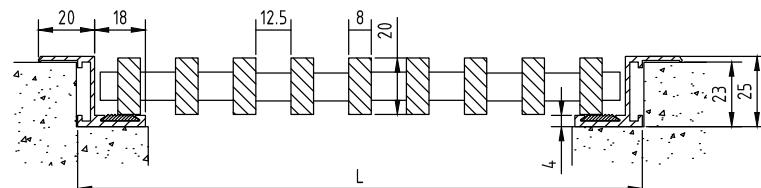
|                    |     |
|--------------------|-----|
| Visual free area   | 61% |
| Physical free area | 61% |

## TECHNICAL DRAWINGS

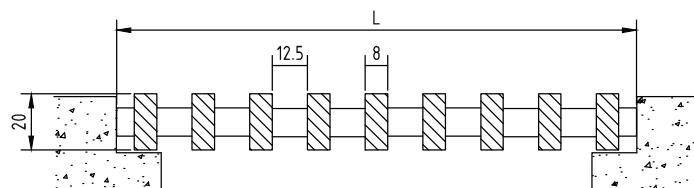
### Cross-sections



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

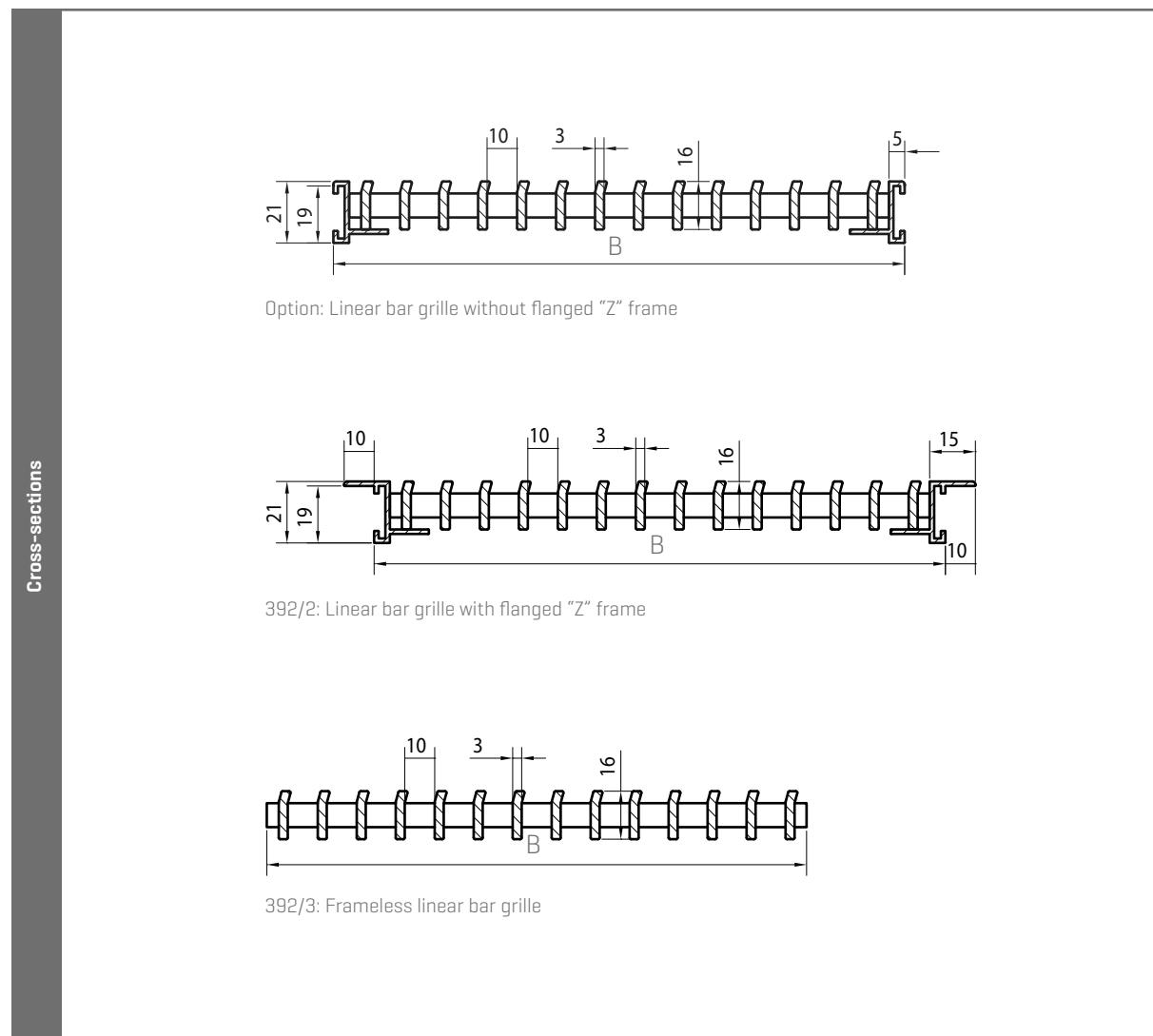
- Radiator frame

## 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



# 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

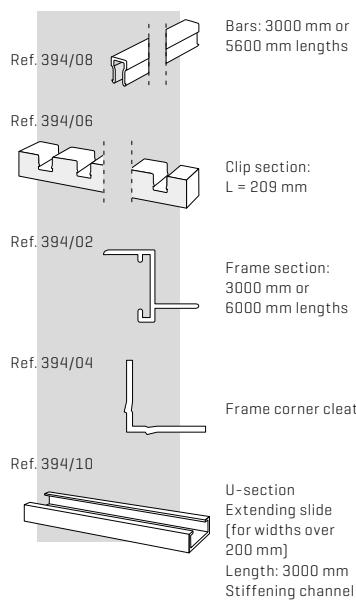
- Bar spacing: 9.5 mm
- Section length: 3 or 5.6 metres
- 394/2
  - Length linear bar grille: min. 110 mm - max. 3510 mm
  - Width linear bar grille:
    - . Per grille element: min. 55 mm - max. 220 mm
    - . Coupled: max. 1055 mm
- 394/3:
  - Length linear bar grille without frame: min. 100 mm - max.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

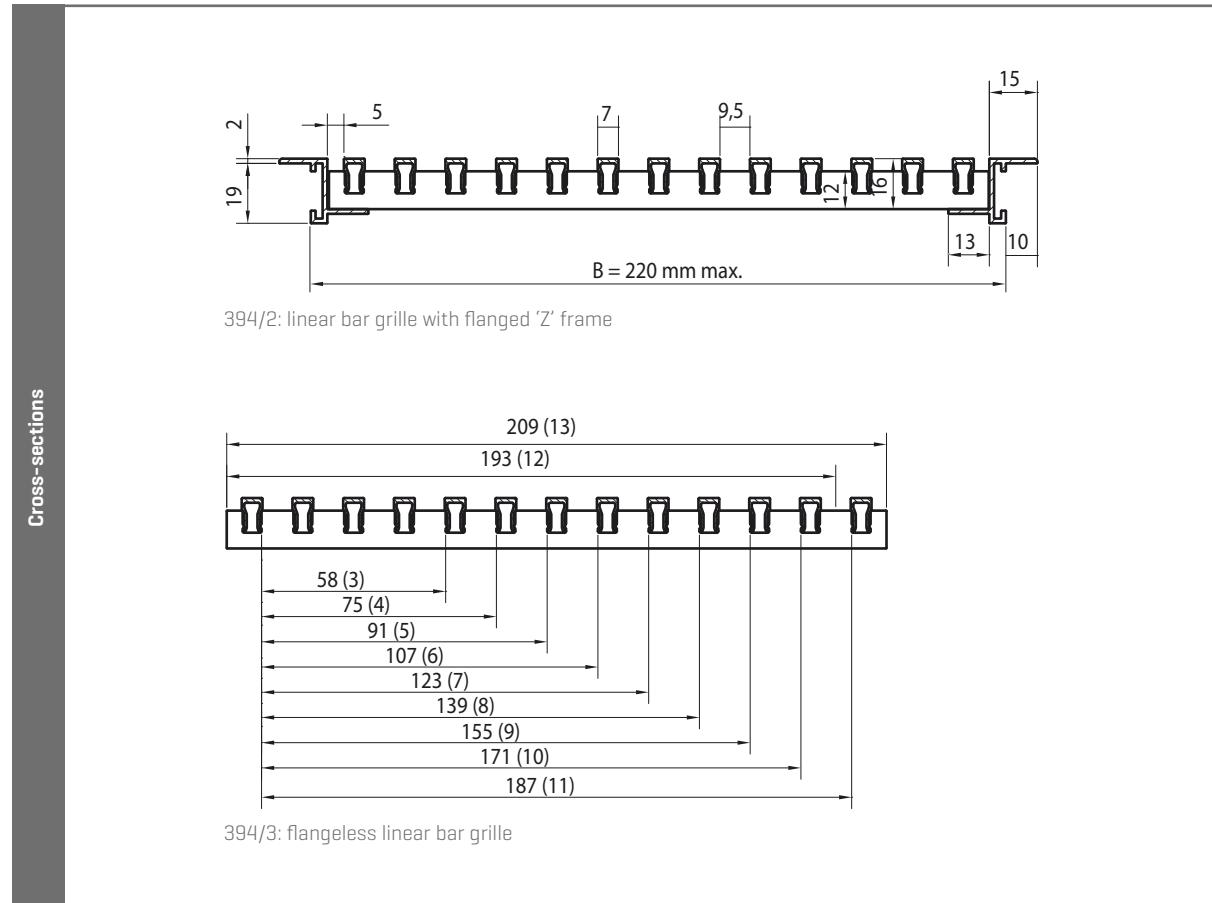
## TECHNICAL SPECIFICATIONS

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<br>[W x H] mm | Natural-coloured<br>anodised | Renson<br>Standard WHITE | RAL 8019 | Airflow at<br>2 Pa [m³/h] | Airflow at<br>20 Pa [m³/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                       |                  |                    |



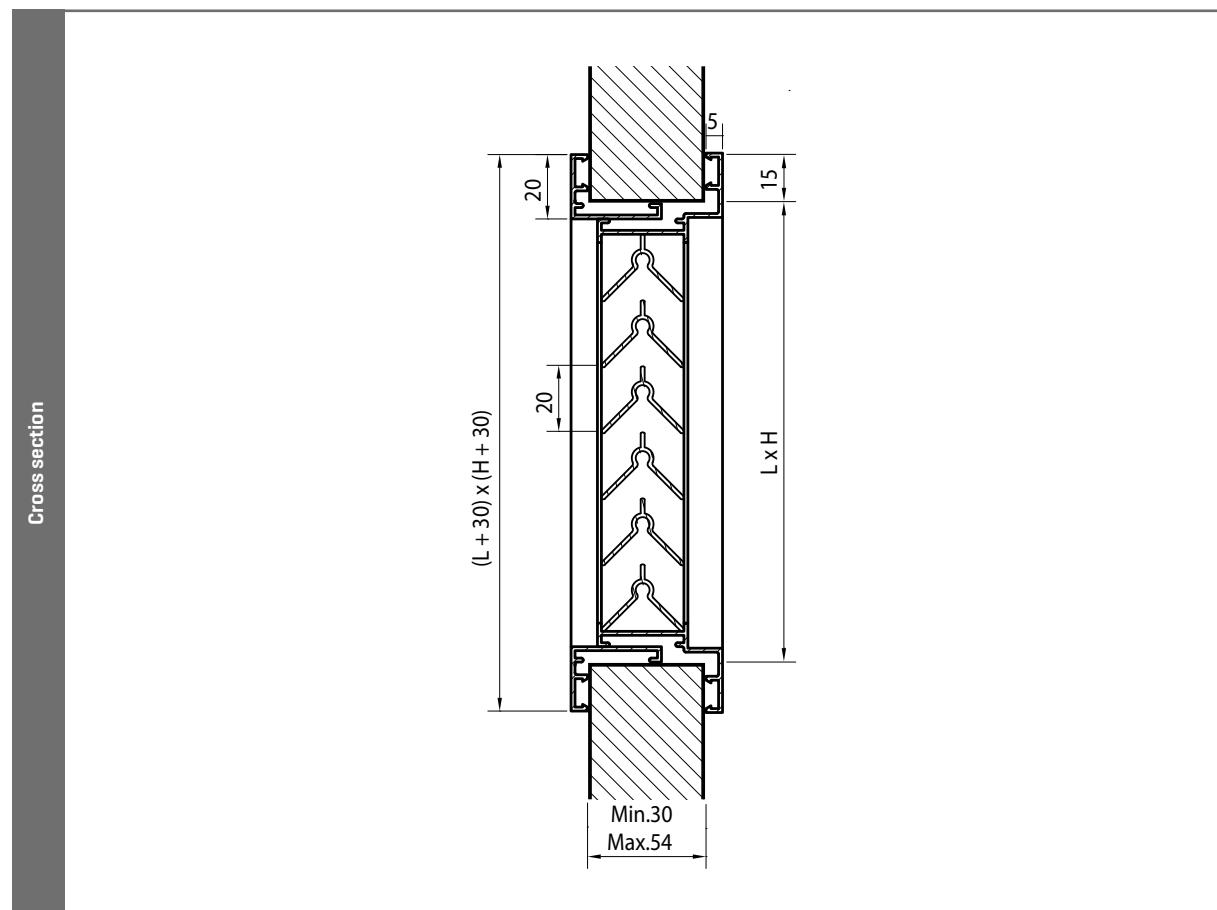
## TECHNICAL SPECIFICATIONS

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

| Technical data     |     |
|--------------------|-----|
| Visual free area   | 93% |
| Physical free area | 93% |



## 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. 146]

### TYPICAL APPLICATIONS

- Schools
- Hospitals
- Elderly homes

*Remark: for internal use only!*

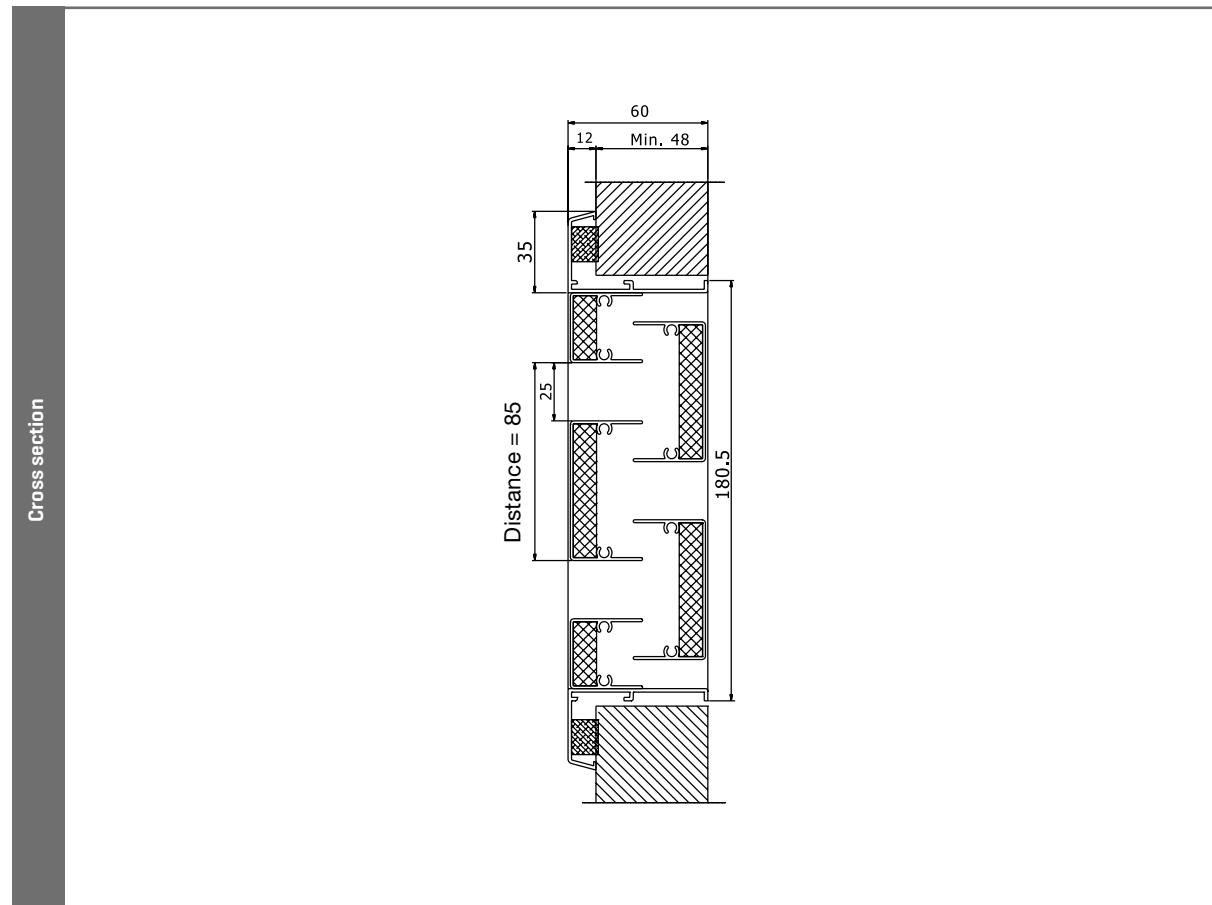


## TECHNICAL SPECIFICATIONS

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

| Airflow                         | [EN 13030]    | [EN ISO 140-10, EN ISO 717-1]                      |  |
|---------------------------------|---------------|--|--|
| K-factor [entry]                | 86.85         |  |  |
| K-factor [discharge]            | 89.35         | R <sub>w</sub> [C; C <sub>tr</sub> ]: 8 [-1;-2] dB |  |
| C <sub>e</sub> coefficient      | 0.107         |  |  |
| C <sub>d</sub> coefficient      | 0.106         |  |  |
| Dimensions [W x H]              | [EN 130141-1] | Airflow at 2 Pa in m³/h                            | Sound reduction D <sub>n, e, w</sub> [C; C <sub>tr</sub> ] |
| Q at 2 Pa - grille 292 x 180 mm |               | 25 m³/h  | 30 [-1;-2] dB  |
| Q at 2 Pa - grille 382 x 265 mm |               | 50 m³/h  | 28 [-1;-2] dB  |
| Q at 2 Pa - grille 432 x 350 mm |               | 75 m³/h  | 26 [-1;-2] dB  |
| Q at 2 Pa - grille 452 x 435 mm |               | 100 m³/h   | 25 [-1;-2] dB  |
| Technical data                  |               |  |  |
| 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!*

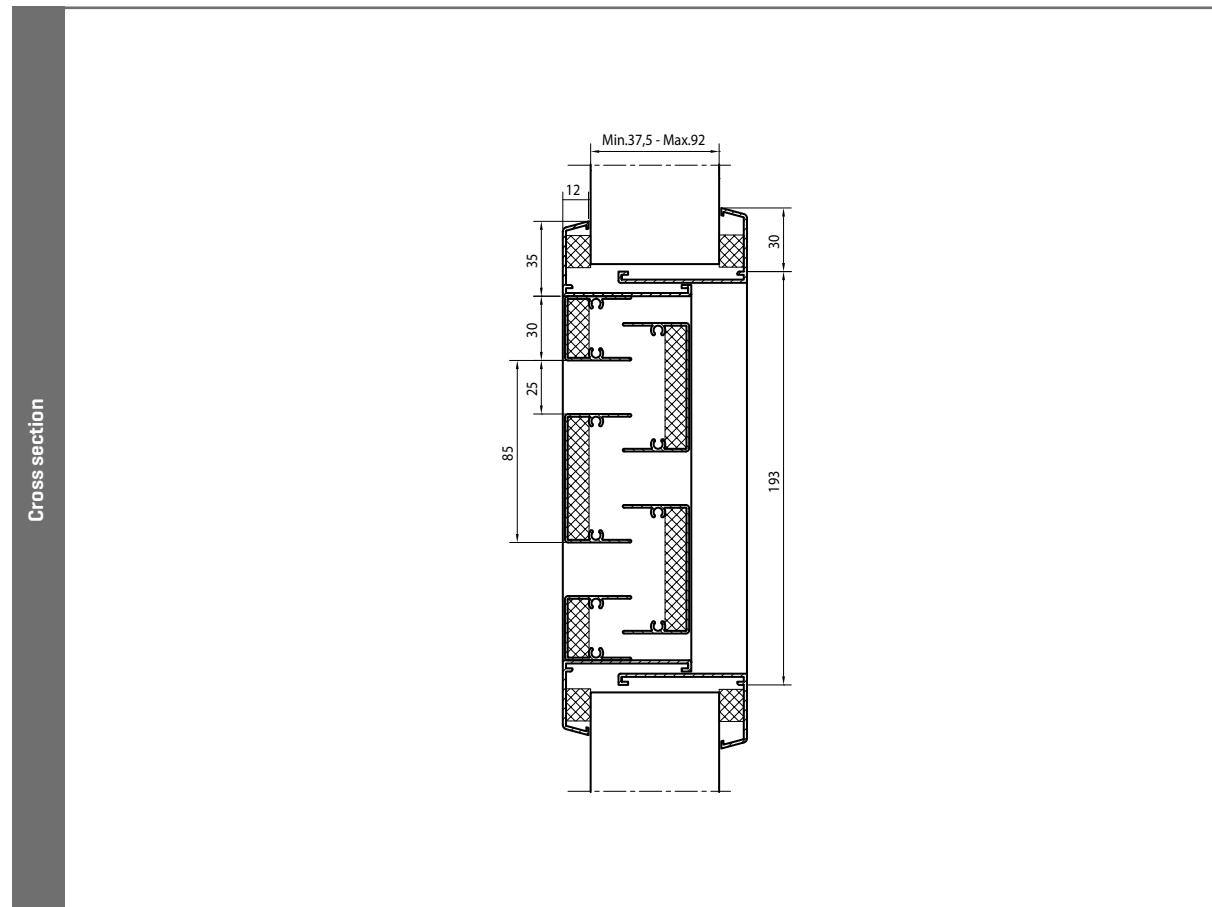


## TECHNICAL SPECIFICATIONS

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

| Airflow                         | [EN 13030]    | [EN ISO 140-10, EN ISO 717-1]                     |   |
|---------------------------------|---------------|---|---|
| K-factor [entry]                | 86.85         |   |   |
| K-factor [discharge]            | 89.35         | R <sub>w</sub> [C;C <sub>tr</sub> ]: 8 [-1;-2] dB |   |
| C <sub>e</sub> coefficient      | 0.107         |   |   |
| C <sub>d</sub> coefficient      | 0.106         |   |   |
| Dimensions [W x H]              | [EN 130141-1] | Airflow at 2 Pa in m <sup>3</sup> /h              | Sound reduction D <sub>n,e,w</sub> [C;C <sub>tr</sub> ] |
| 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   |
| Technical data                  |               |   |   |
| Visual free area                |               | 29%   |   |
| Physical free area              |               | 29%   |   |
| IP class [louvre with mesh]     |               | IP2XD   |   |

## TECHNICAL DRAWINGS



# 461AK 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

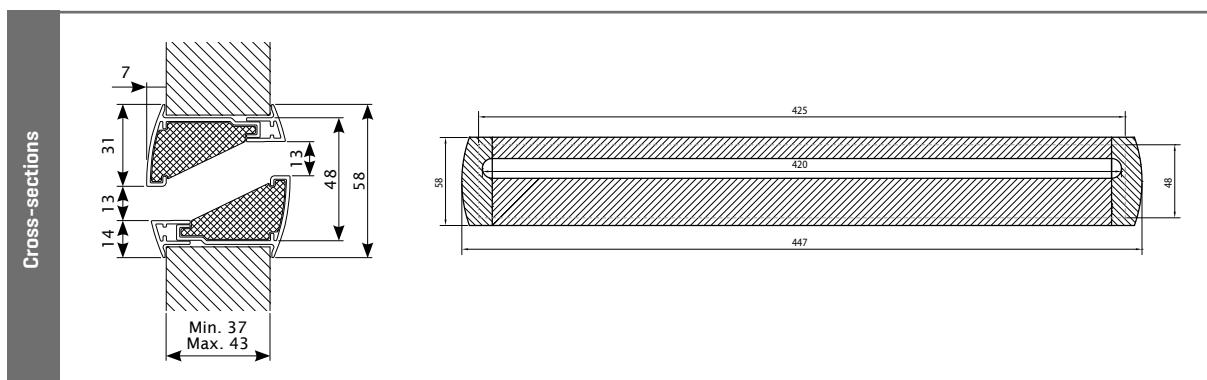
- Click system

## 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 <sub>n,θ,w</sub> [C;C <sub>tr</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

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

### Invisido® 469 (type 830)

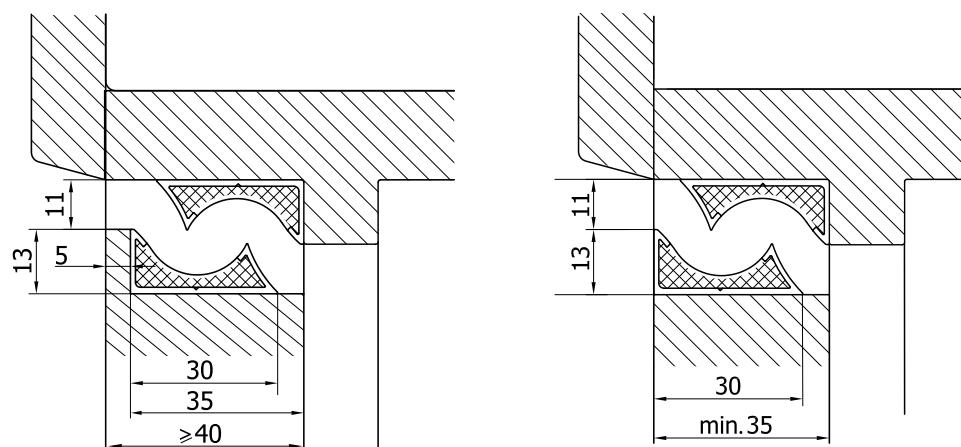
| Airflow   |          | [EN 13141-1]                  |
|---|----------|-------------------------------|
| Q at 1 Pa   |          | 17.6 m³/h [4.9 dm³/s]         |
| Q at 2 Pa   |          | 25.3 m³/h                     |
| Q at 10 Pa  |          | 58.8 m³/h                     |
| Q at 20 Pa  |  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

Other colours available upon request



## TECHNICAL DRAWINGS

Cross-sections



# INCENDO® 464

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

FIRE-RESISTANT LOUVRE



## MATERIAL

- Blades filled with intumescence 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*

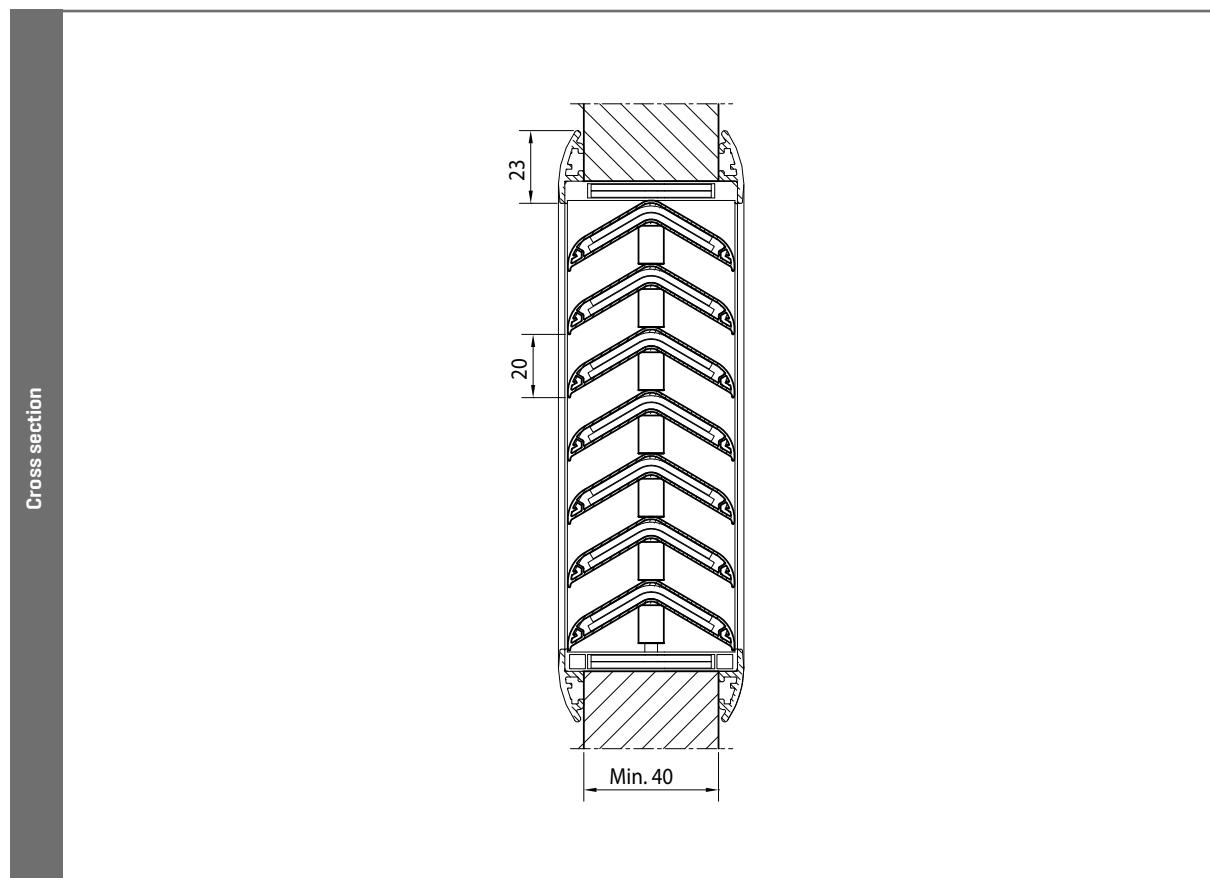


## TECHNICAL SPECIFICATIONS

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

| <b>Airflow</b>  |  | [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                    |
| <b>Technical data</b>                                 |  |                          |
| Visual free area                                      |  | 61%                      |
| Physical free area                                    |  | 51%                      |
| IP class  |  | IP2XD                    |
| <b>Fire classification</b>                            |  | [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-RESISTANT 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

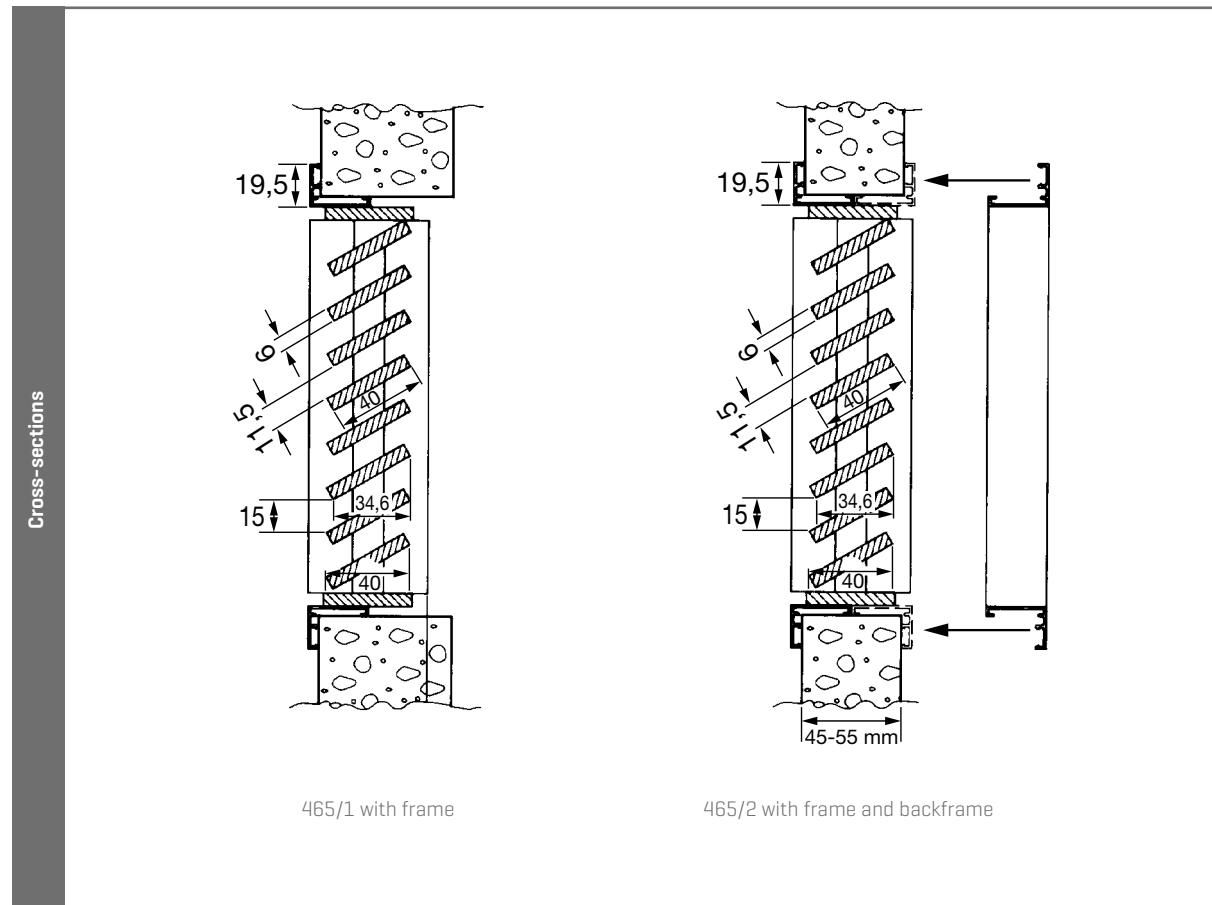
| Dimensions<br>[W x H] mm | 465/1<br>(with frame) | 465/2 (with frame<br>and backframe) | Airflow at 2 Pa [m³/h] |
|--------------------------|-----------------------|-------------------------------------|------------------------|
| 200 x 200                | 00465122              |                                     | 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-RESISTANT 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

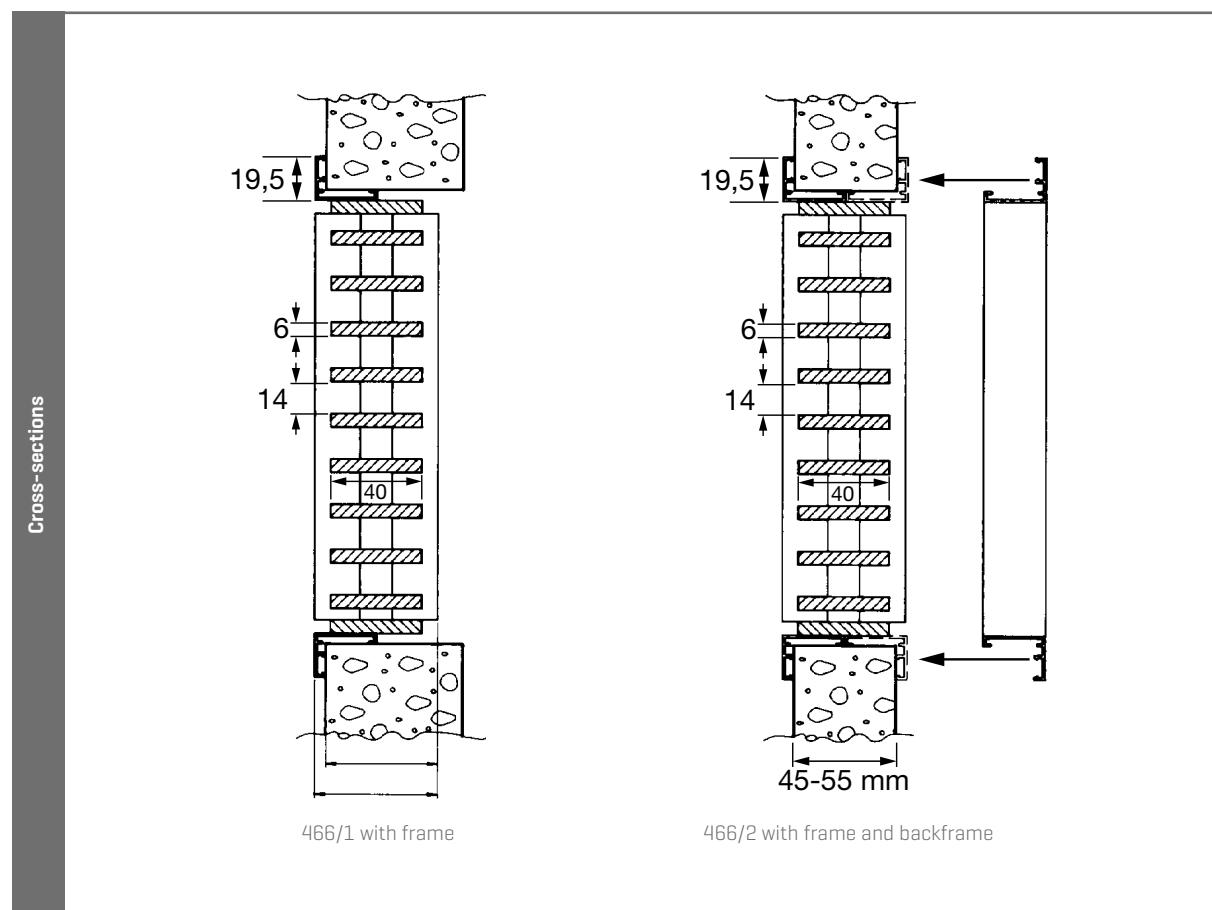
- Frame for 55 to 80 mm thickness

## 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-RESISTANT 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

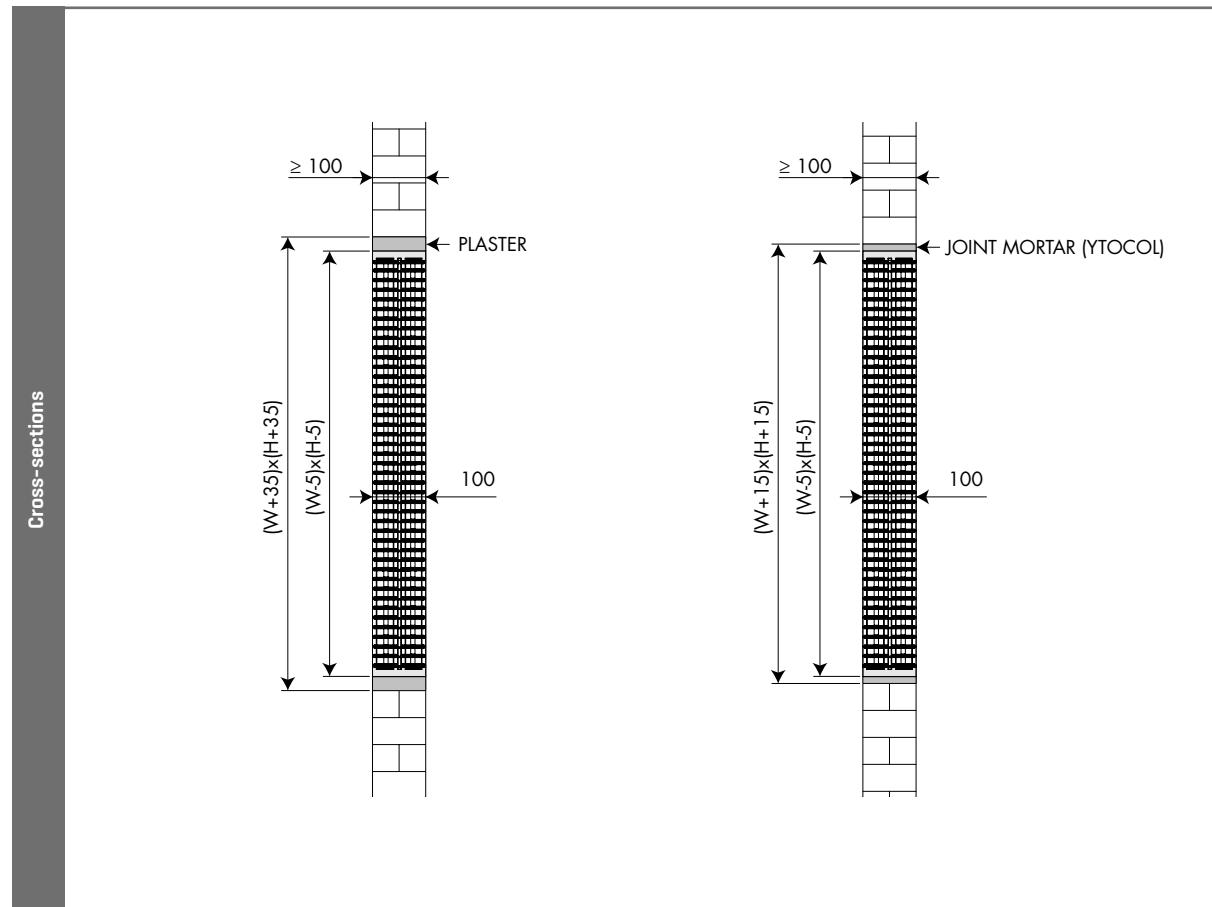
*Note: not for outdoor use; avoid contact with water.*

## TECHNICAL SPECIFICATIONS

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

| <b>Airflow</b>                       |  | [EN 13030]        |
|--------------------------------------|--|-------------------|
| K-factor [entry]                     |  | 4.16              |
| K-factor [discharge]                 |  | 4.06              |
| $C_e$ coefficient                    |  | 0.490             |
| $C_d$ coefficient                    |  | 0.496             |
| <b>Technical data</b>                |  |                   |
| Visual free area                     |  | 66.7%             |
| Physical free area                   |  | 66.7%             |
| <b>Fire classification</b>           |  | [EN 13501-2]      |
| Solid concrete wall ( $\geq 100$ 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

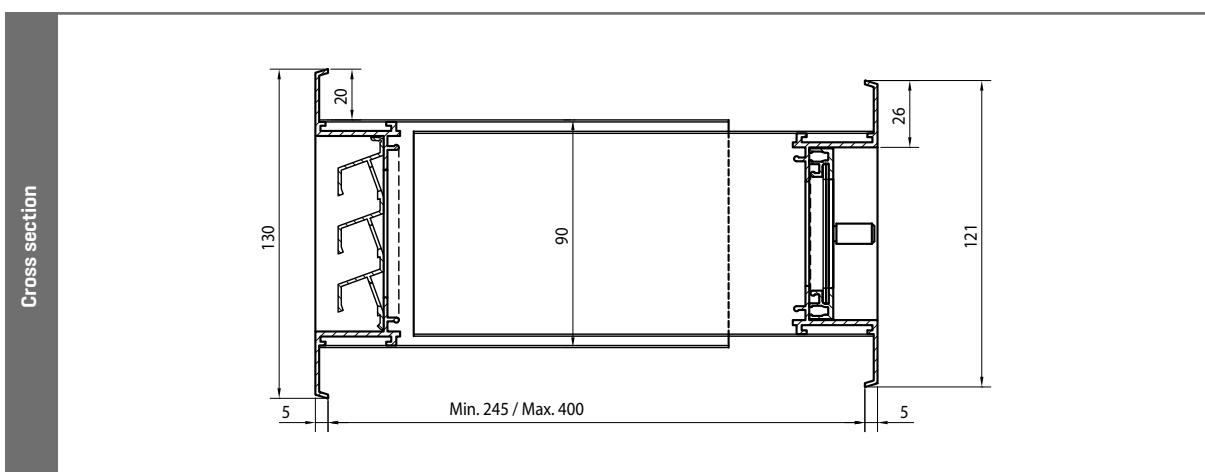
#### FIXING

- Spring clips are included

#### STOCK MODELS

| Dimensions<br>[W x H] mm | Natural colour<br>anodised | Renson<br>Standard<br>WHITE | Airway opening<br>in cm <sup>2</sup> | Airflow at<br>2 Pa [m <sup>3</sup> /h] | Airflow at<br>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]



#### FIXING

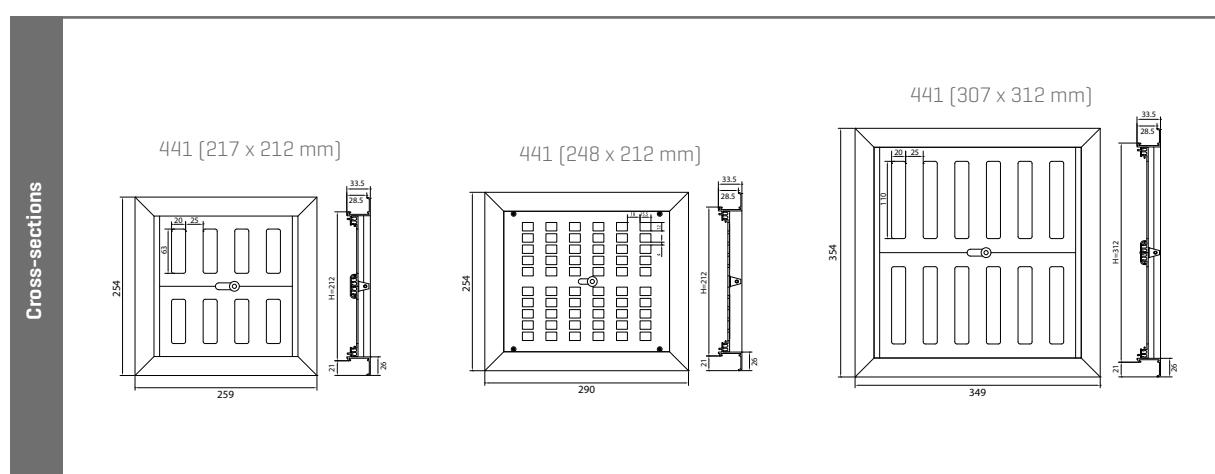
- Spring clips available on request



#### STOCK MODELS

| Dimensions<br>[W x H] mm | Natural colour<br>anodised | Renson Standard<br>WHITE | Airway opening<br>in cm <sup>2</sup> | Airflow at 2 Pa<br>[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

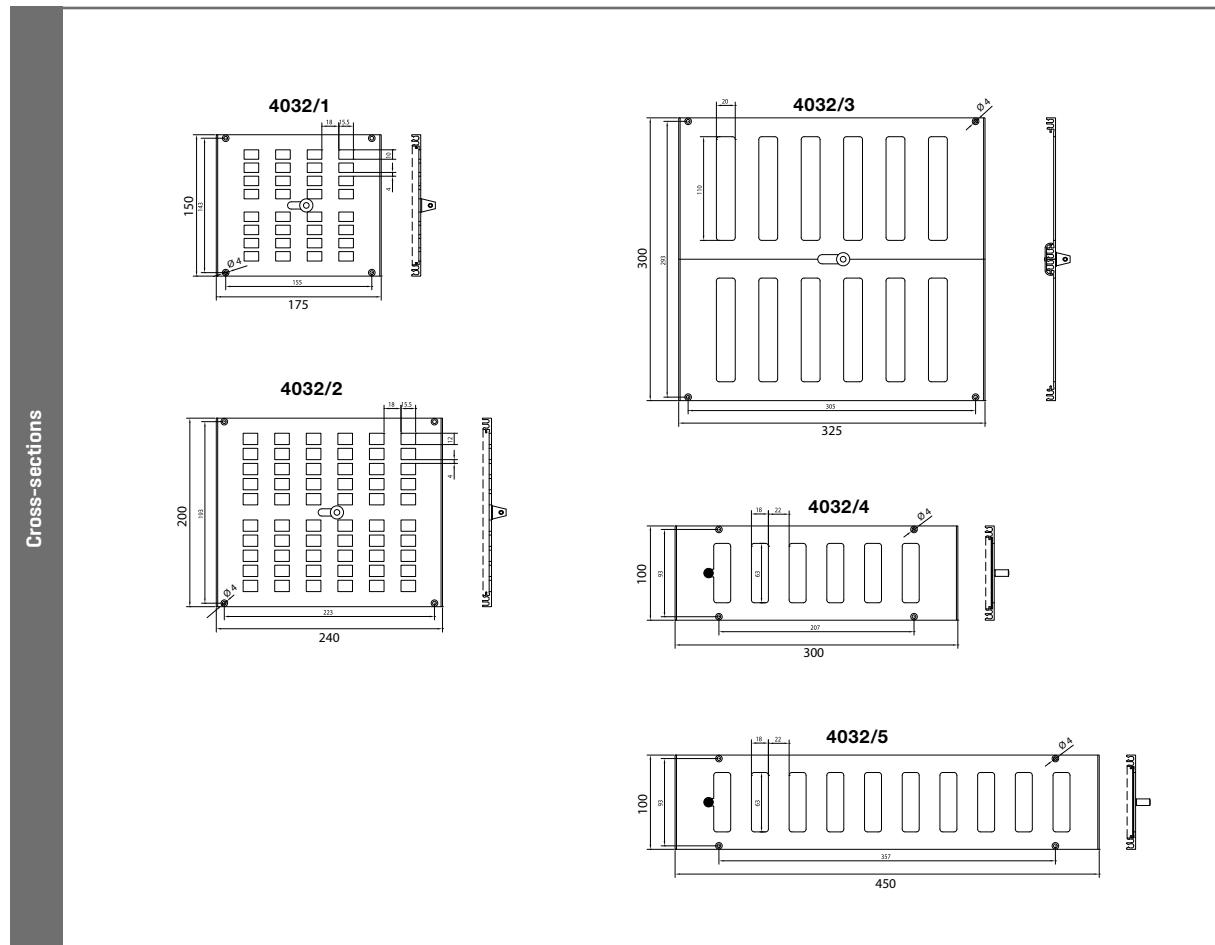
### FIXING

- Screws and plugs are included

## STOCK MODELS

| Dimensions<br>[W x H] mm | Natural colour<br>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

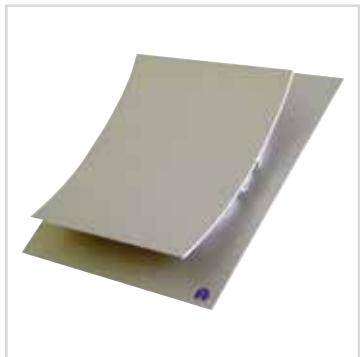


# XD

## 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



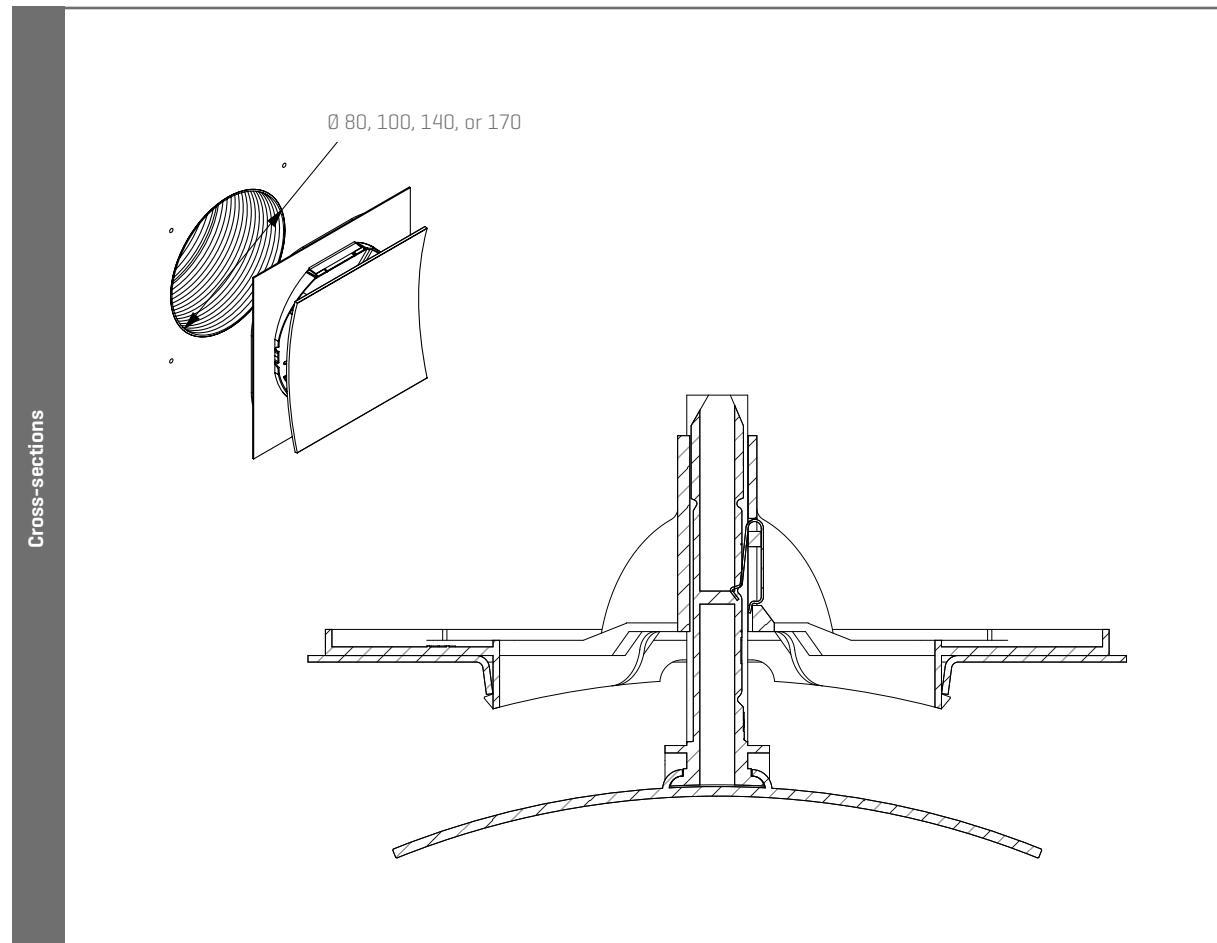
## TECHNICAL SPECIFICATIONS

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<br>depth: 79 [closed]                                       | 188 x 188<br>depth: 79 [closed]   | 233 x 233<br>depth: 79 [closed]   |
| Use                   | System C<br>All wet rooms   | System A<br>Toilet<br>Closed area ≤ 14 m <sup>2</sup>                                     | System A<br>Openspace kitchen<br>Close area ≤ 14 m <sup>2</sup>                           |
| Airflow [EN 13141-1]  | Position I: not possible<br>Position II: 22 m <sup>3</sup> /h at 2 Pa | Position I: 39.2 m <sup>3</sup> /h at 2 Pa<br>Position II: 50.4 m <sup>3</sup> /h at 2 Pa | Position I: 63.0 m <sup>3</sup> /h at 2 Pa<br>Position II: 87.1 m <sup>3</sup> /h at 2 Pa |
| Duct diameter         | 80 mm<br>[max. Ø 140 mm]  | 100 mm, 140 mm<br>[max. Ø 160 mm]   | 140 mm, 170 mm<br>[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

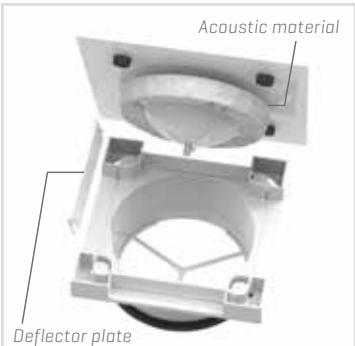
- Prevents distorted sound at the vent

### 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

|                             | <b>Deluxe</b>    | <b>Basic</b>  |
|-----------------------------|------------------|---------------|
| 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

|                 |                | <b>100% open</b>   |                | <b>66% open</b>    |                | <b>33% open</b>    |  |
|-----------------|----------------|--------------------|----------------|--------------------|----------------|--------------------|--|
| <b>Q [m³/h]</b> | <b>dP [Pa]</b> | <b>LwA [dB(A)]</b> | <b>dP [Pa]</b> | <b>LwA [dB(A)]</b> | <b>dP [Pa]</b> | <b>LwA [dB(A)]</b> |  |
| 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

|                 |                | <b>100% open</b>   |                | <b>66% open</b>    |                | <b>33% open</b>    |  |
|-----------------|----------------|--------------------|----------------|--------------------|----------------|--------------------|--|
| <b>Q [m³/h]</b> | <b>dP [Pa]</b> | <b>LwA [dB(A)]</b> | <b>dP [Pa]</b> | <b>LwA [dB(A)]</b> | <b>dP [Pa]</b> | <b>LwA [dB(A)]</b> |  |
| 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

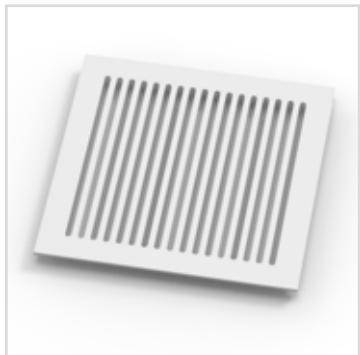
|                 |                | <b>100% open</b>   |                | <b>66% open</b>    |                | <b>33% open</b>    |  |
|-----------------|----------------|--------------------|----------------|--------------------|----------------|--------------------|--|
| <b>Q [m³/h]</b> | <b>dP [Pa]</b> | <b>LwA [dB(A)]</b> | <b>dP [Pa]</b> | <b>LwA [dB(A)]</b> | <b>dP [Pa]</b> | <b>LwA [dB(A)]</b> |  |
| 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

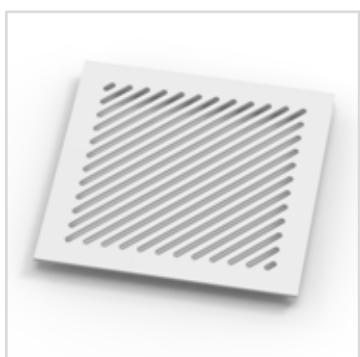
| Type         | Dimensions [mm]  | White    |
|--------------|------------------|----------|
| XD25-50 PURO | 130 x 130, Ø 80  | 66031630 |
| XD75 PURO    | 170 x 170, Ø 125 | 66031631 |



## Square

### TECHNICAL SPECIFICATIONS

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



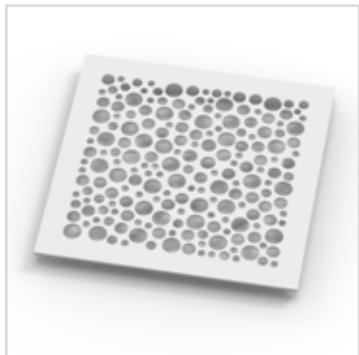
## Diagonal

### 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

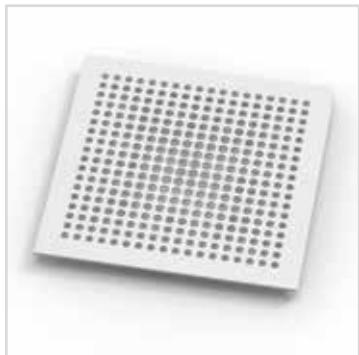
Design extraction louvres



## 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

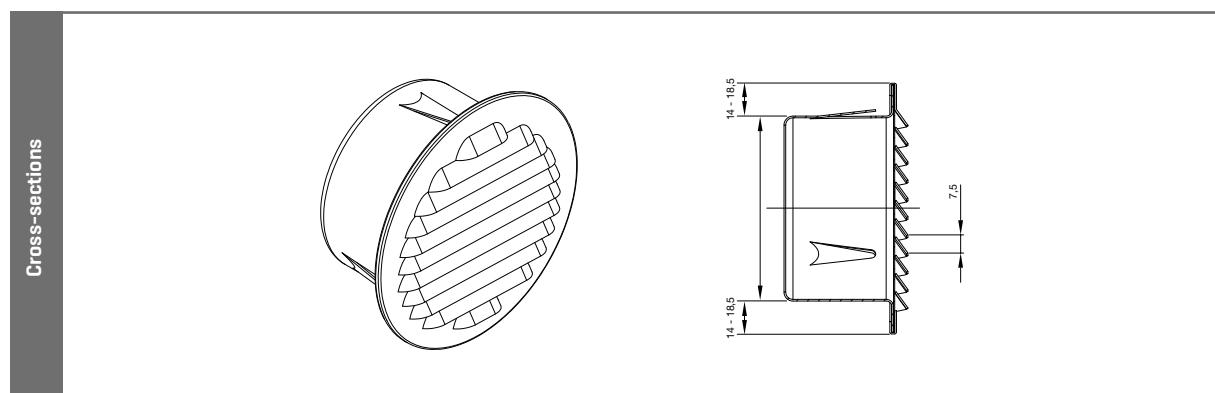
- Made from punched aluminium sheet
- Finishing: powder-coated in white [RAL 9010], brown [RAL 8019] and aluminium [RAL 9006] colours
- Insect mesh included

### 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]

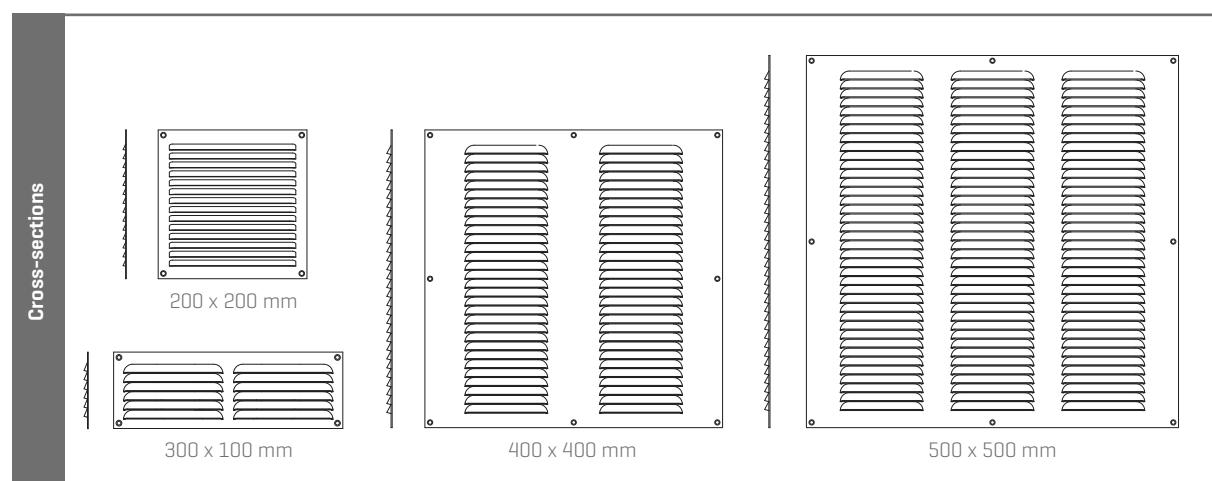
#### TECHNICAL SPECIFICATIONS

- Physical free area: 28%

#### STOCK MODELS

| [W x H] mm | F1       | Renson<br>Standard<br>WHITE | RAL 8019 | STR 7016 | STR<br>9005 | Airflow at<br>2 Pa [m³/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

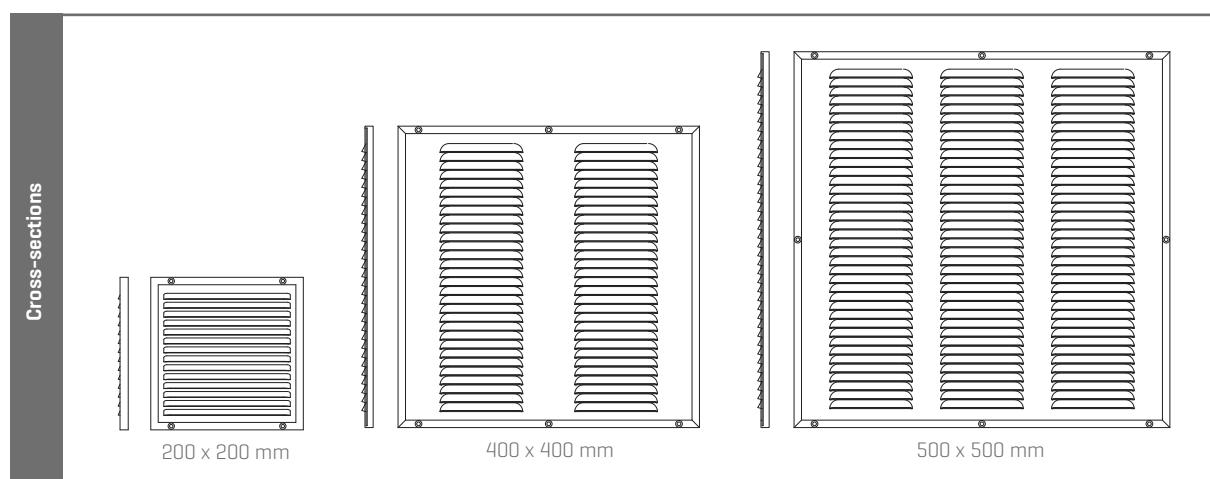
- Screw-mounted [screws and plugs not provided]

### STOCK MODELS

| [W x H] mm | F1       | Renson Standard WHITE | RAL 8019 | STR 7016 | STR 9005 | Airflow at 2 Pa [m³/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 [m³/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]



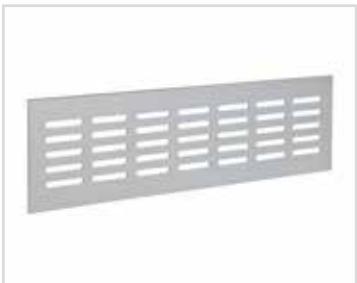
### STOCK MODELS

| [W x H] mm | F1       | Renson<br>Standard WHITE | RAL 8019 | Airflow at<br>2 Pa [m³/h] |
|------------|----------|--------------------------|----------|---------------------------|
| 155 x 155  | 21551551 | 21551556                 | 21551557 | 15.9                      |
| 195 x 195  | 21951951 | 21951956                 | 21951957 | 21.6                      |
| 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

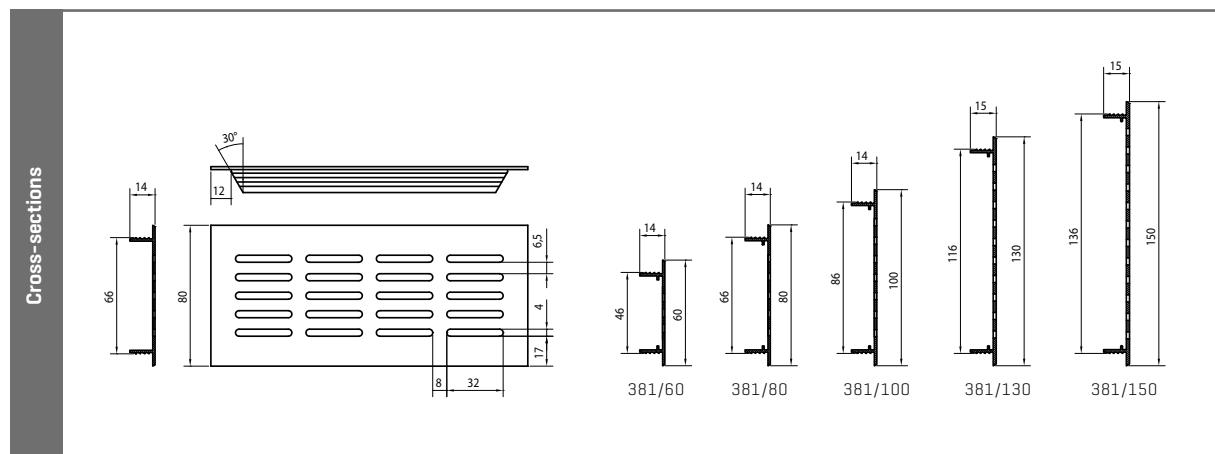


## STOCK MODELS

| Dimensions<br>[W x H] mm | Natural-coloured<br>anodised | Renson<br>Standard WHITE | RAL 8022 | STR 9005 | Air flow<br>opening at cm <sup>2</sup> | Airflow at<br>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.be](http://www.renson.be)

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- **Creating healthy spaces**

From 1909, we've been developing energy efficient solutions assuring a healthy and comfortable indoor climate. Our headquarters - built according to the 'Healthy Building Concept' - is a beautiful example portraying our corporate mission.

- **No speed limit on innovation**

A multidisciplinary team of more than 90 R&D employees continually optimize our products and develop new and innovative concepts.

- **Strong in communication**

Contact with the customer is of the utmost importance. A group of 100 in-the-field employees worldwide and a powerful international distribution network are ready to advise you on site. EXIT 5 at Waregem gives you the possibility to experience our products on your own and provides necessary training for installers.

- **A reliable partner in business**

We can guarantee our customers optimal quality and service thanks to our environmentally friendly and modern production sites [with automated powder coating line, anodisation line, uPVC injection molding machinery and mold making shop] covering an area of 95.000 m<sup>2</sup>.



Creating healthy spaces

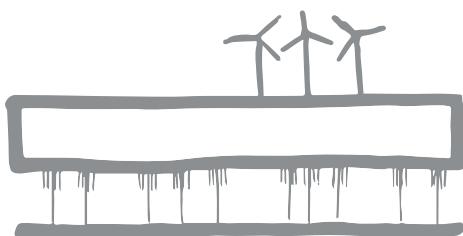
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