

Description and application

Rectangular wall external weather louvres used in ventilation installation intake and exhaust as the end of air intake pipes and ventilation holes in the walls of buildings or directly on the duct. The special shape of the louvres / blades protects air intake hole before the direct ingress of rain into fresh air and exhaust air openings. In standard used is protective mesh that protects before the bird, rodent and larger impurities (like the leaves) inside the installation. They are installed in external walls and facades.

External intake louvres has Hygienic Certificate HK/K/0522/02/2016

Material and workmanship

External intake louvre frame is made of galvanized steel powder coated to any RAL color (standard RAL 9006). The blades are made of profiled galvanized steel, powder coated to any RAL color (standard RAL 9006). Directly behind the intake louvre is a steel mesh expanded metal (standard N16). On request it is possible to make a external intake louvres of aluminum and stainless steel (1.4301 or 1.4404).

In order to improve the effective surface area A_{ef} , it is possible to increase the distance between successive blades of louvre, for example:

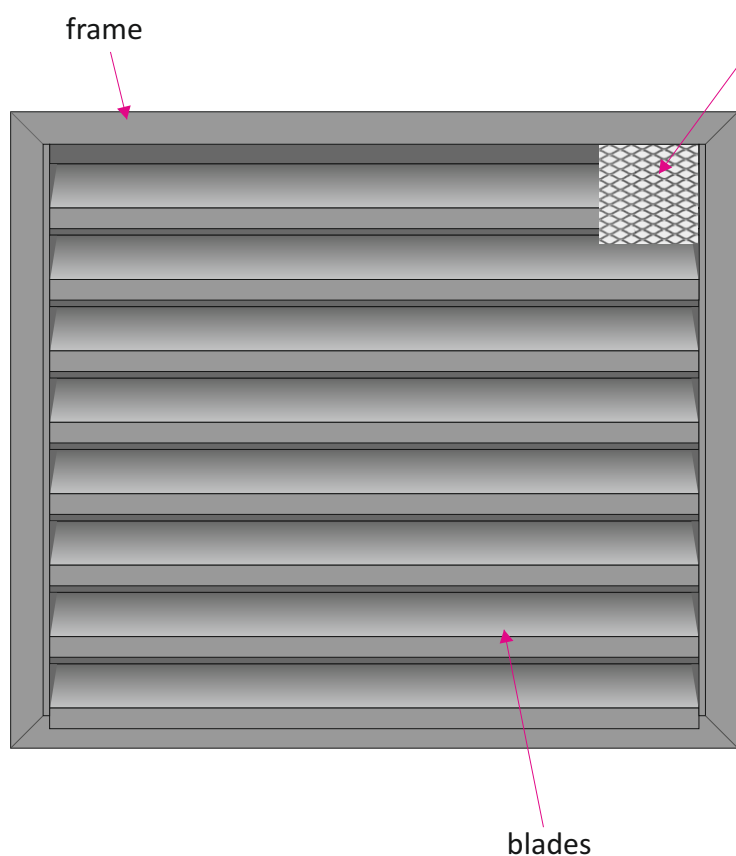
- spacing at 55mm (standard) allows you to achieve approx. 64% effective area.
- spacing at 65mm allows you to achieve approx. 75% effective area (scheme below).

Size

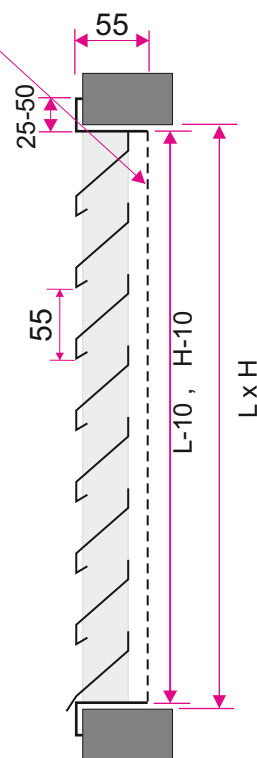
Intake louvres are manufactured to order. Louvre dimension by the customer request.

L - width of the mounting hole

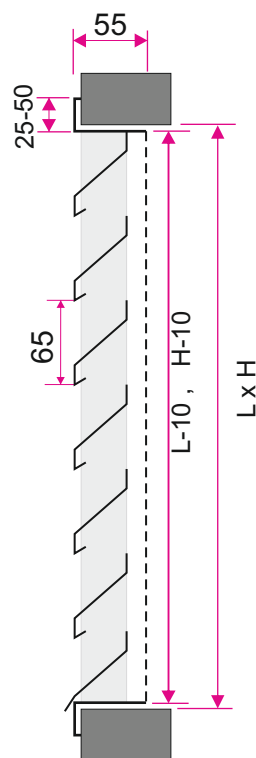
H - height of the mounting hole



spacing blinds
55mm



spacing blinds
65mm

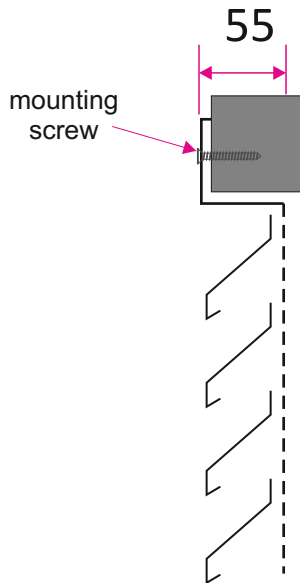


Width of the frame:

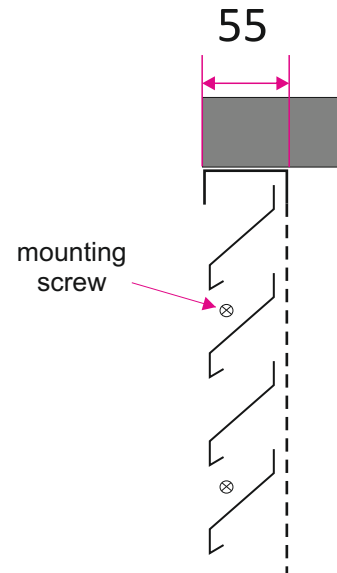
25mm for L or H < 1000mm

50mm for L or H > 1000mm

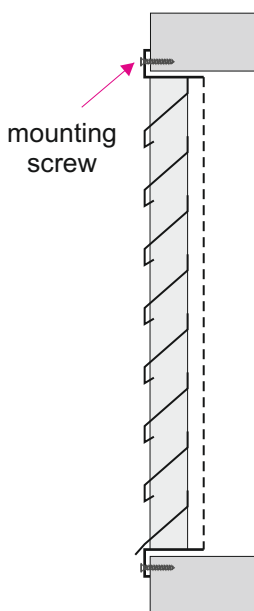
When ordering, please provide information on a possible increase in the spacing of the blades. Without such information louvres are made with 55mm spacing.

Type of frame
frame - R1


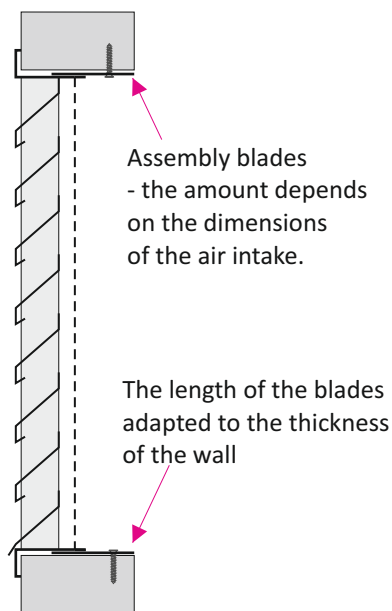
Frame with entering into the canal and eversion on the wall - standard.

frame - R2


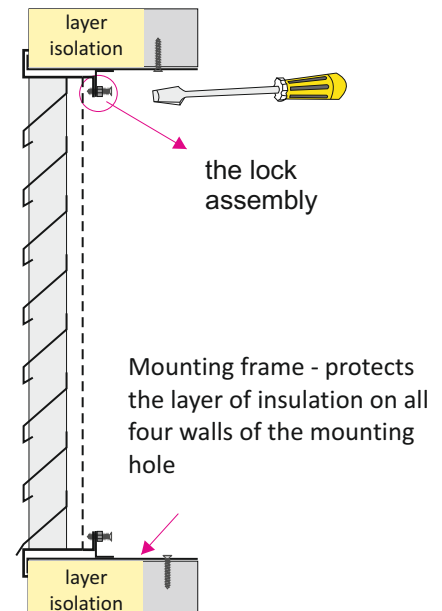
The frame in the C-profile - the louvre is screwed to the inside of the channel.

Methods of mounting - FRAME 1
W1


Assembling visible through screws and mounting holes in the louvre frame

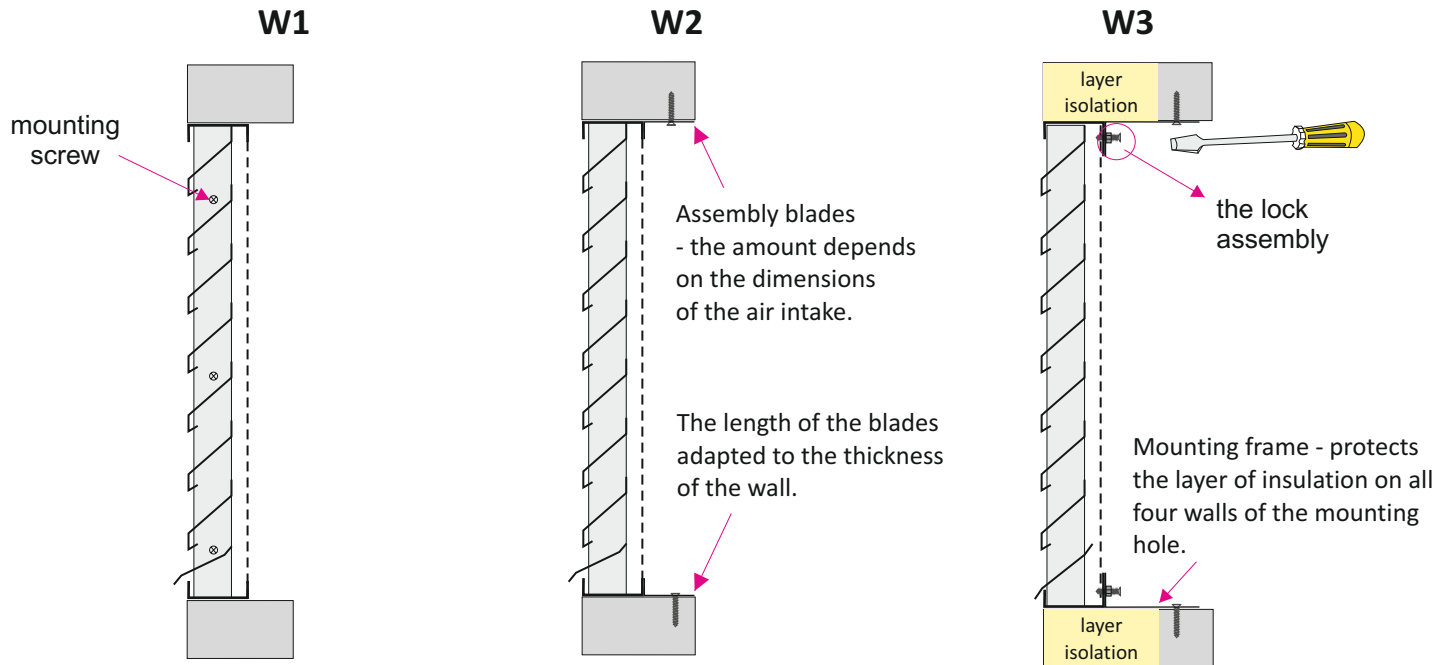
W2


Assembling invisible with shields assembly.

W3


Assembling invisible by screws and lock assembly in mounting frame RM

Methods of mounting - FRAME 2



Assembling visible through screws and mounting holes on the sides of louvre

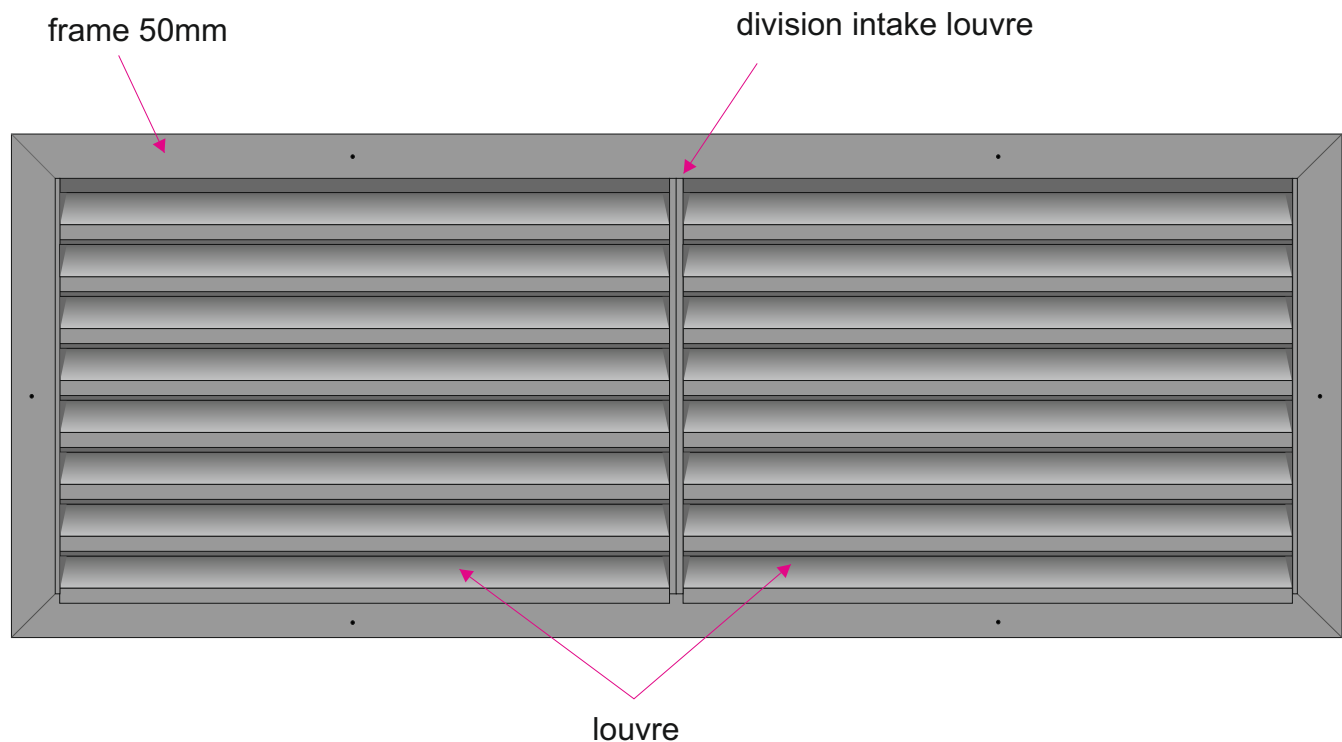
Assembling invisible with shields assembly.

Assembling invisible by screws and lock assembly in mounting frame RM.

Variation execution - division

If the width of the intake louvre (blade length) **exceeds 2000mm**, the intake louvre is shared. We offer three variants of execution intake louvre shared:

1) entirely frame + shared intake louvre - for dimensions to max. L=2350mm and H=1500mm



2) intake louvres "puzzle" - for sizes above L=2350mm and H=1500mm (the amount of intake louvre adapted to the overall dimension of the mounting hole)

Louvres ready for transport

MODULE 1

MODULE 2

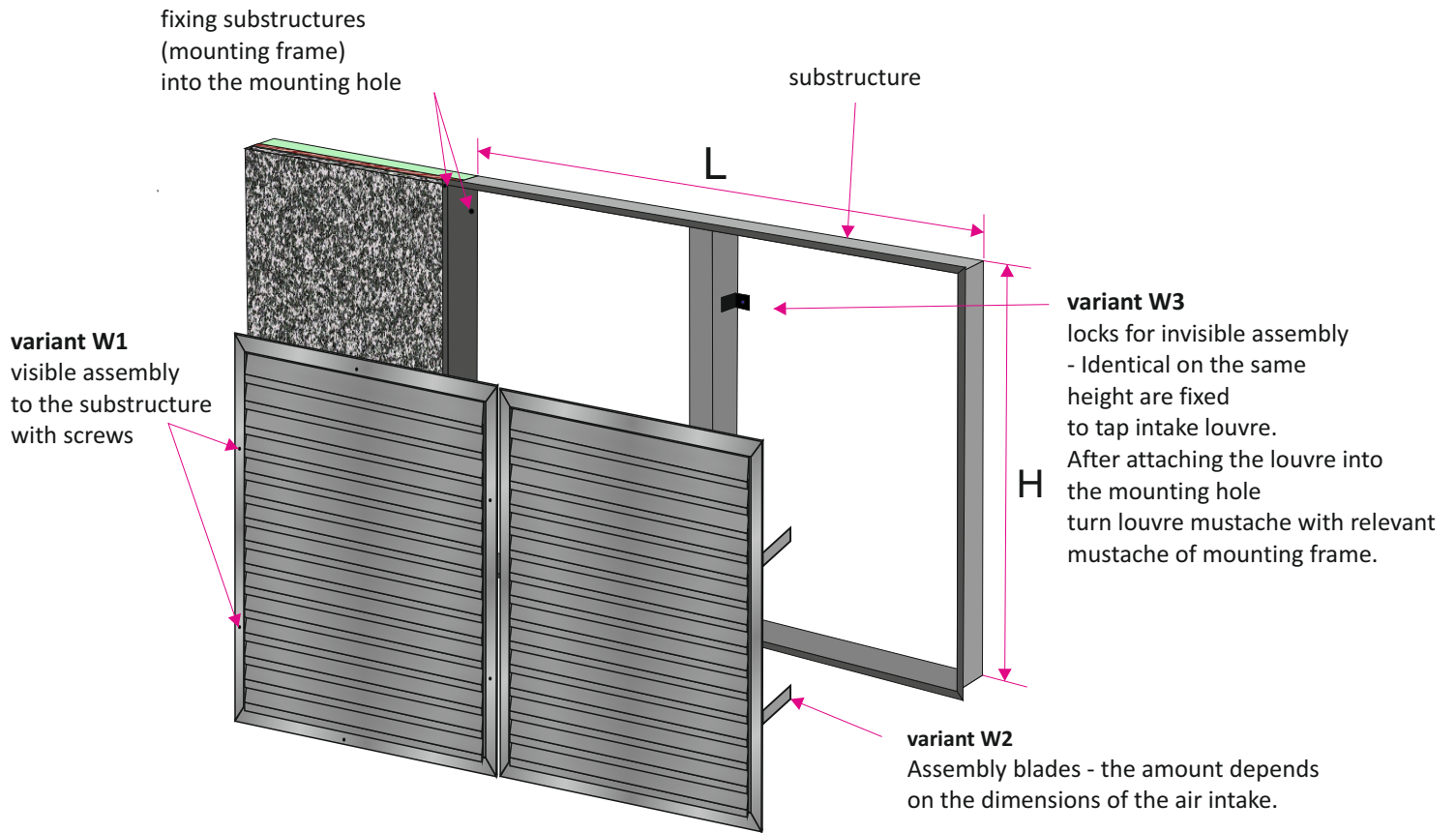
MODULE 3



Louvres after mounting



3) wall external intake louvre + substructure (mounting frame) - for sizes above L=2350mm and H=1500mm (the amount of intake louvre adapted to the overall dimension of the mounting hole)

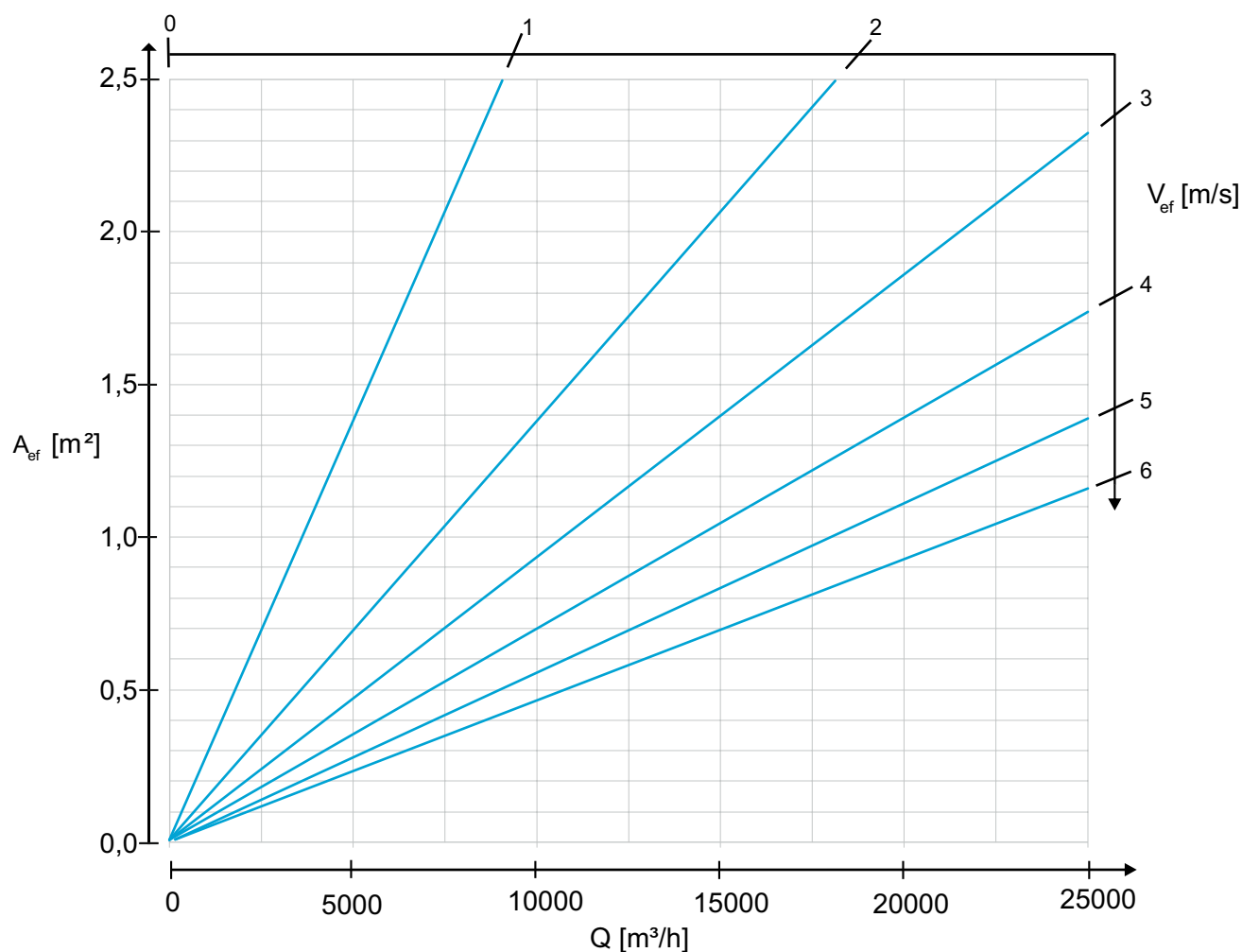


Technical data - The effective area of air flow

H [mm] \ L [mm]	300	400	500	600	800	1000	1200	1400	1600	1800	2000
A_{ef} (m²) effective area wall external intake louvre CzS-A											
300	0,05	0,07	0,08	0,10	0,14	0,19	0,22	0,26	0,30	0,34	0,38
400	0,07	0,09	0,11	0,14	0,19	0,25	0,30	0,35	0,40	0,45	0,51
500	0,08	0,11	0,14	0,17	0,23	0,32	0,38	0,44	0,51	0,57	0,63
600	0,10	0,14	0,17	0,21	0,28	0,38	0,46	0,53	0,61	0,69	0,76
800	0,14	0,19	0,23	0,28	0,37	0,51	0,61	0,71	0,82	0,92	1,02
1000	0,19	0,25	0,32	0,38	0,51	0,64	0,77	0,89	1,02	1,15	1,28
1200	0,22	0,30	0,38	0,46	0,61	0,77	0,92	1,08	1,23	1,38	1,54
1400	0,26	0,35	0,44	0,53	0,71	0,89	1,08	1,26	1,44	1,62	1,80
1600	0,30	0,40	0,51	0,61	0,82	1,02	1,23	1,44	1,64	1,85	2,06
1800	0,34	0,45	0,57	0,69	0,92	1,15	1,38	1,62	1,85	2,08	2,32
2000	0,38	0,51	0,63	0,76	1,02	1,28	1,54	1,80	2,06	2,32	2,58
2400	0,42	0,56	0,70	0,85	1,13	1,54	1,85	2,16	2,47	2,78	3,09
2800	0,49	0,65	0,82	0,99	1,32	1,80	2,16	2,52	2,88	3,25	3,61
3000	0,52	0,70	0,87	1,06	1,42	1,92	2,31	2,70	3,09	3,48	3,87

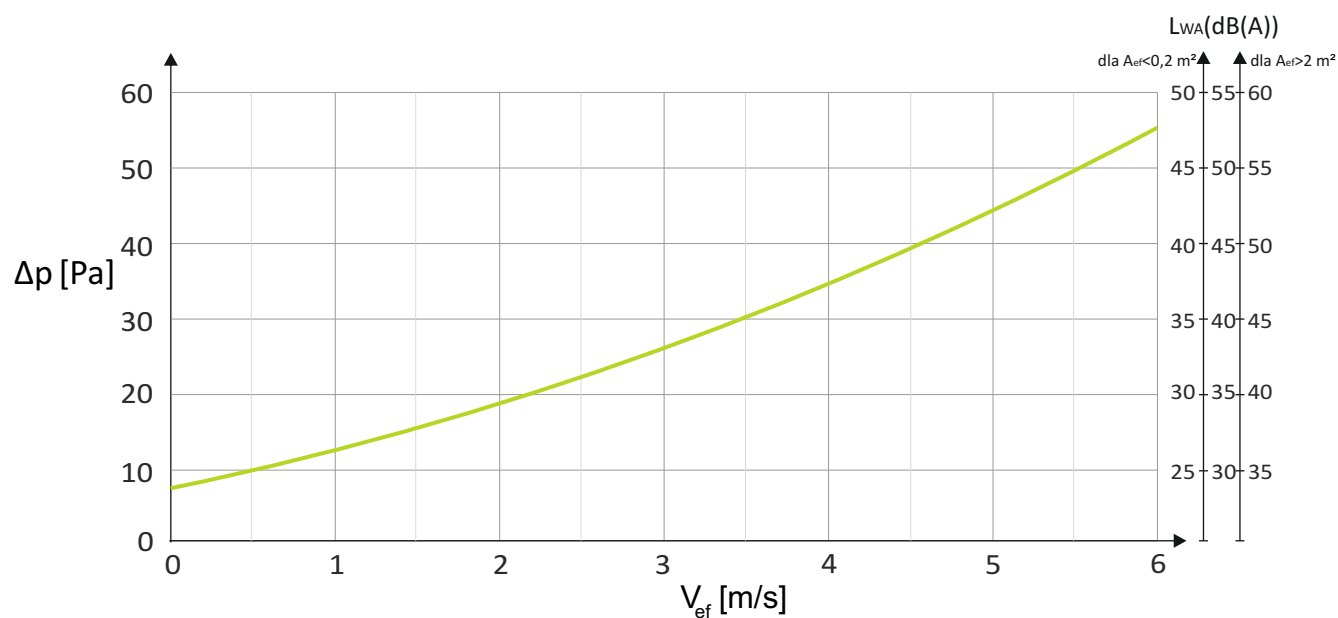
	Intake louvre one-piece, undivided		Intake louvre divided into dimension H
	Intake louvre divided into dimension L		Intake louvre into dimension L i H

Technical data - Effective speed depending on the flow of air and the effective surface area.



Dependence of the pressure drop and acoustic power depending on the speed of air on intake louvre.

The recommended air speed is 2-3 m/s, max 5 m/s.

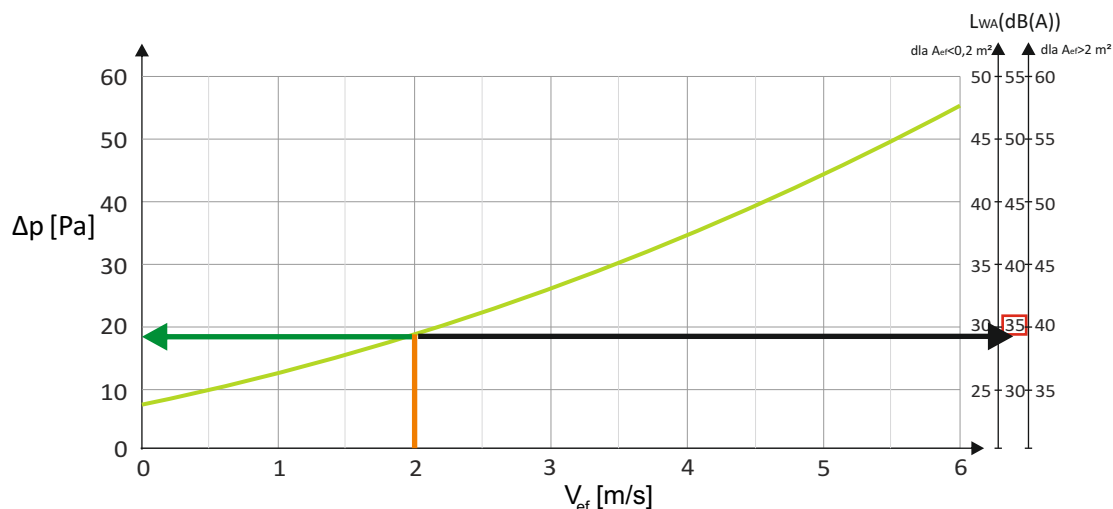
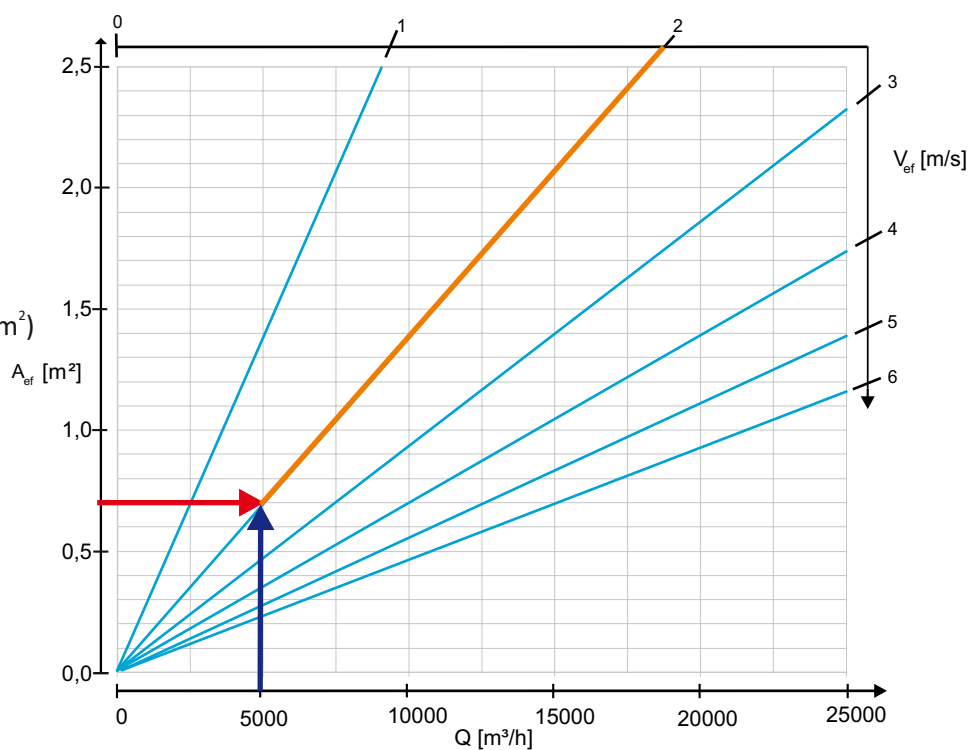


EXAMPLE

- Air volume flow $Q=5000 \text{ m}^3/\text{h}$
- size of wall external intake louvre: 1400×800 ($A_{\text{ef}} = 0,71 \text{ m}^2$)

Reading from tables and graphs:

- effective speed: $v_{\text{ef}} = 2 \text{ m/s}$
- pressure drop on louvre $\Delta p = 18 \text{ Pa}$
- acoustic power $L_{\text{WA}} < 35 \text{ dB}$ ($0,2 \text{ m}^2 < A_{\text{ef}} < 2 \text{ m}^2$)



The method of placing an order

Please make orders according to the following formula:

CzS-A / 'LxH' / 'RAL' / 'M' / 'W'

- 'LxH' - mounting hole size (width x height) in mm
- 'RAL' - louvre color according to RAL palette (standard RAL9006*)
- 'M' - material:
 - OC** - powder coated steel*
 - AL** - aluminum powder coated
 - KO** - stainless steel / acid proof steel (1.4301 or 1.4404)
- 'W' - type of frame
 - R1** - frame with flange to the wall
 - R2** - frame in C-profil
- mounting option:
 - W1** - visible assembly with screws through the holes in louvre front frame *
 - W2** - invisible assembly with shields assembly
 - W3** - invisible assembly using screws, and an additional mounting frame

* - If you don't give the information will be used standard parameters.