



Product manual

Sound attenuation louvers

FZ-A

Airflow distribution

Version 1.0.1
Date: 24.04.2025.

FZ-A

Acoustic louvre is installed at the beginning or end of all HVAC systems as protection from rain, leaves, birds, large bugs and other animals.

Special characteristic of this louvre is sound attenuation produced in system.
For larger acoustic demands it is possible to produce double frame.
Louvre does not provide complete water barrier.

Types of louvres:

- FZ - 30 A
- FZ - 60 A Double frame
- Louvre is made out of galvanized sheet metal frame, profiled dampers and protective galvanized steel mesh.
- Inside of damper blade is filled with tervol for noise absorption.



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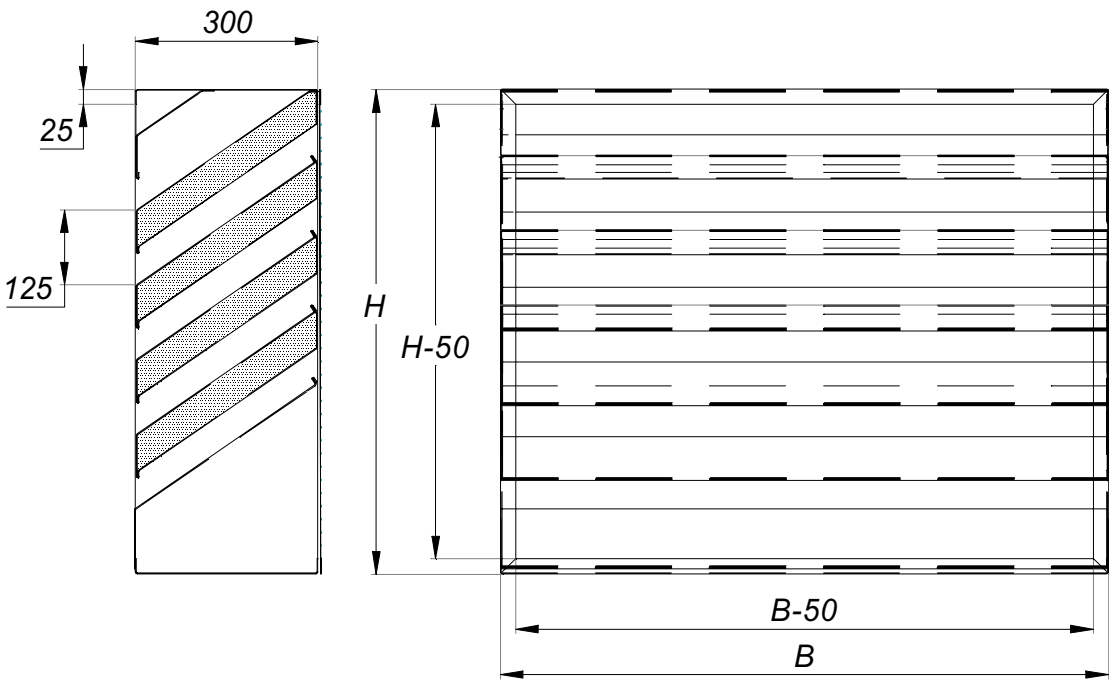
PRODUCT OVERVIEW

AIRFLOW DISTRIBUTION

DIMENSIONS

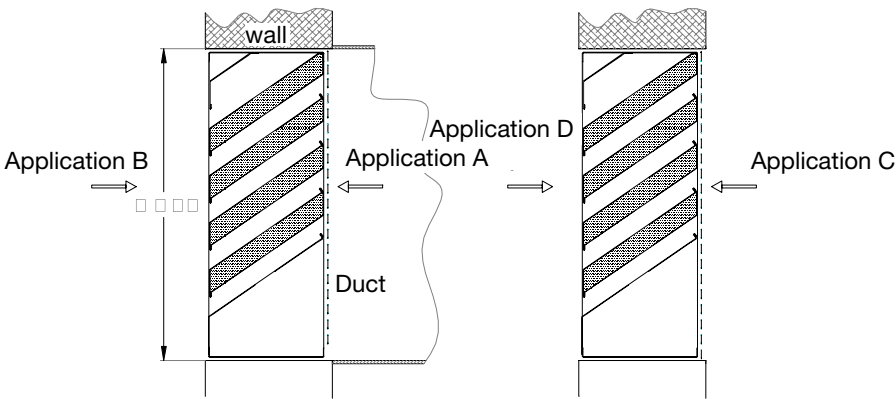
Width B [mm]	Height H [mm]	Ribbed surface A [m²] = B x H	Effective surface Aef [m²]
400	435	0,174	0,0110
600	560	0,336	0,0346
800	685	0,548	0,0709
1000	810	0,810	0,1197
1200	935	0,12	0,1810
1400	1060	0,484	0,2551
1600	1185	1,896	0,3417
1800	1310	2,358	0,4409
2000	1435	2,870	0,5527
	1560		
	1685		
	1810		
	1935		

* All possible combinations of B x H



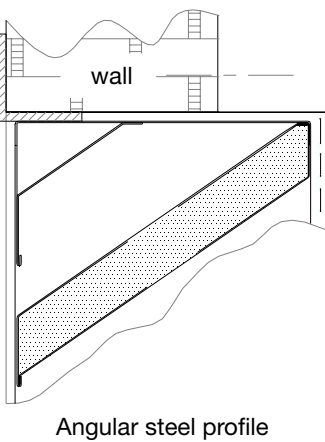
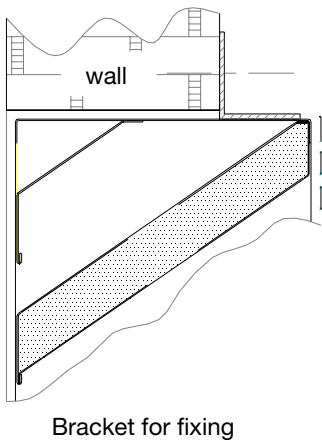
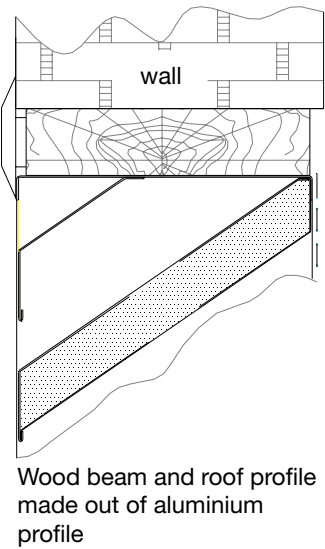
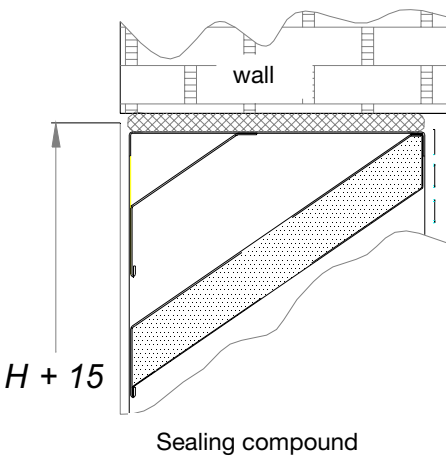
Installation

Different louvre applications



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Example of louvre installation



INSTALLATION



FZ-A 30



FZ-A 60

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ORDERING KEY

AIRFLOW DISTRIBUTION

ORDERING KEY

(1) Model (2) Type (3) Dimensions

FZ-A	-	30	-	1200 x 935
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(1) Sound attenuation louvers
FZ-A

(2) Type: **30**
60

(3) Dimensions: **400-435 x 2000-1935** [mm]

Diagrams

Sound power level and pressure drop correction

	Application A	Application B	Application C	Application D
k p	1,0	0,74	0,95	0,68
ΔL_A	0	-4	-3	-4

Total louvre pressure drop $\Delta_{P_{uk}}$ (Pa) = $k_p \times p$ (Pa)

Specific louvre noise level $L_{WA \text{ spec.}}$ (dB) = $L_{WA} + L_s + L_A$

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Width factor s (S = (B/1000))

Width B [mm]	Width factor s
400	0,4
600	0,6
800	0,8
1000	1,0
1200	1,2
1400	1,4
1600	1,6
1800	1,8
2000	2,0

*for s = 1 $A_{ef} = A_{1ef} \times s$

Effective surface A_{ef} (m²)

Height H [mm]	Unit effective area for S = 1 (B = 1m) A_{1ef} [m ²]
435	0,0299
560	0,0598
685	0,0898
810	0,1197
935	0,1496
1060	0,1795
1185	0,2094
1310	0,2393
1435	0,2693
1560	0,2992
1685	0,3291
1810	0,3590
1935	0,3889

*for s = 1 $A_{ef} = A_{1ef} \times s$

Sound power level correction depending on louvre width

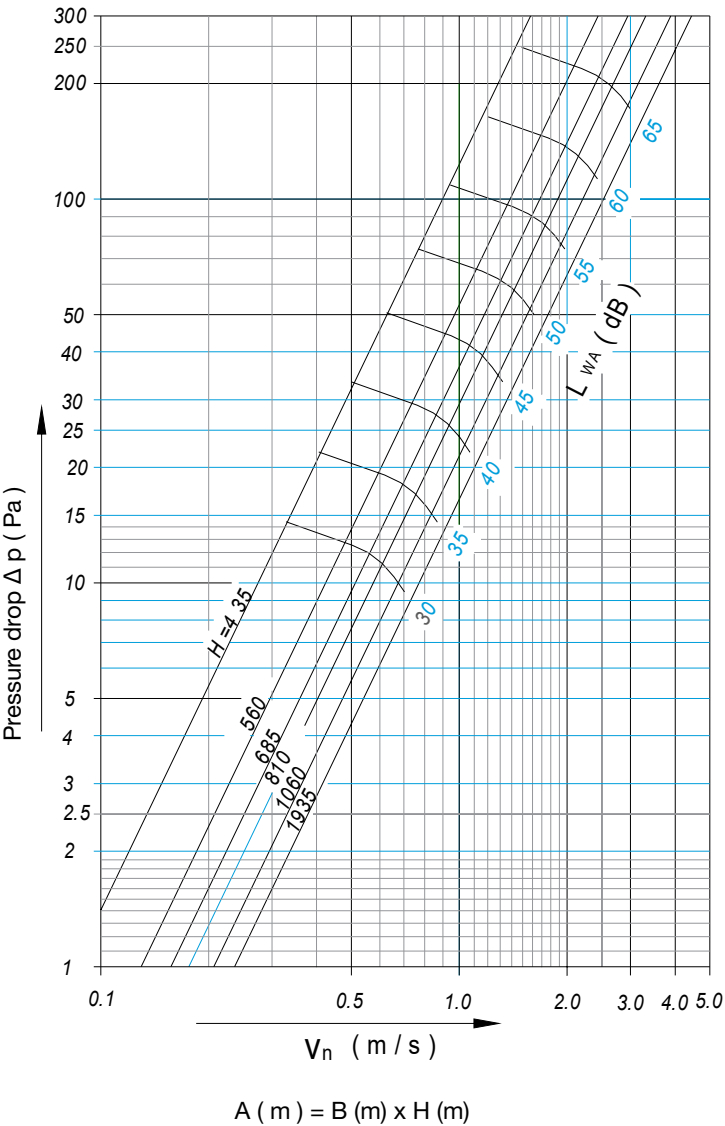
Width factor s	0,4	0,6	0,8	1,0	1,2	1,4	1,6	1,8	2,0
ΔL_s	-4	-2	-1	0	1	1	2	3	4



DIAGRAMS

Diagrams

Pressure drop Δp (Pa)
Sound power level L_{WA} (dB)



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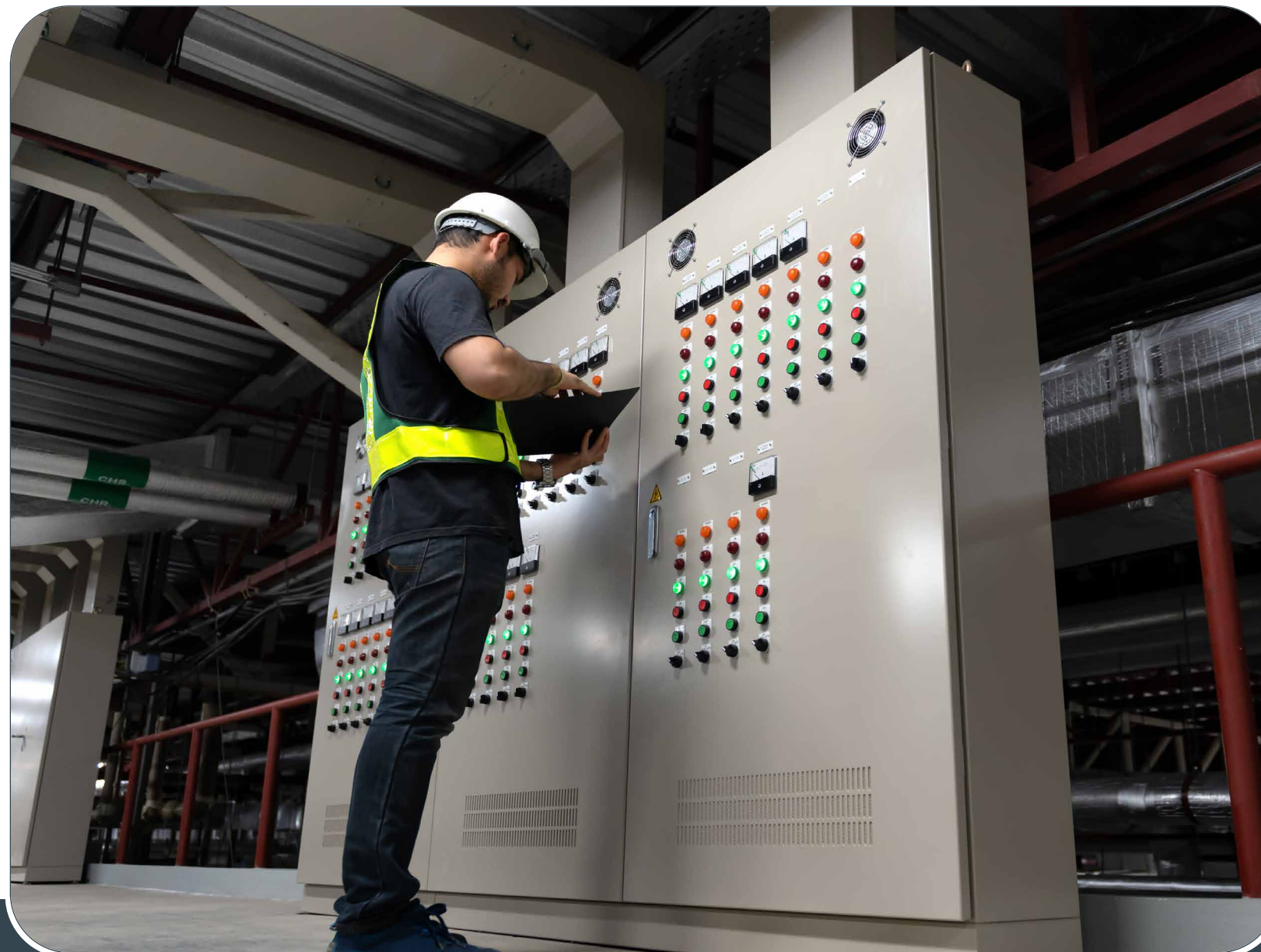
DIAGRAMS

Correction values

ΔL_f (dB)				
f (Hz)	Application A	Application B	Application C	Application D
63	9	4	-1	-3
125	3	5	9	9
200	2	4	6	7
500	-4	-4	-3	-3
1000	-8	-7	-7	-5
2000	-9	-10	-10	-10
4000	-11	-17	-25	-30
8000	-20	-25	-30	-35

Sound attenuation D_e (dB) and resistance R (dB)

f (Hz)	D_e (dB)	R (dB)
63	4	-
125	5	6
200	7	6
500	9	9
1000	13	12
2000	15	-
4000	13	
8000	15	-



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TRANSPORT

After arrival, check the louver for transport damage and shortcomings. In case of any damage or shortcomings, immediately contact your supplier.

STORAGE

If the louver is not installed immediately:

- Remove any wrapping.
- Protect louver from dust and contamination.
- Do not expose the louver to the effects of weather, store the louver in a dry place.

Please properly dispose of packaging material!

MAINTENANCE AND OPERATION

Klimaoprema louvers are designed as such do not require cleaning and regular maintenance.

- After each intervention, provide a systematic cleaning of dust
- Cleaning instruction: clean with a sponge, with water or a mild detergent

It is not permitted to alter the louvers in any way nor perform any changes to their structure without the manufacturer's consent. The functional test must be carried out in compliance with the basic maintenance principles of the European norm.

COMMISSIONING

- Carefully unpack - be careful of sharp edges and do not use excessive force for unpacking
- Before commissioning - check the product functions



AIRFLOW DISTRIBUTION

Images are for informational purposes only and may differ from the actual product.
Follow the latest versions of the catalog on the website.

-  Gradna 78A, 10430 Samobor, Croatia
-  +385 (0)1 33 62 513
-  info@klimaoprema.com
-  www.klimaoprema.com