



Weather Resistant Louvres

W, AW, AWE Weather Resistant Louvres

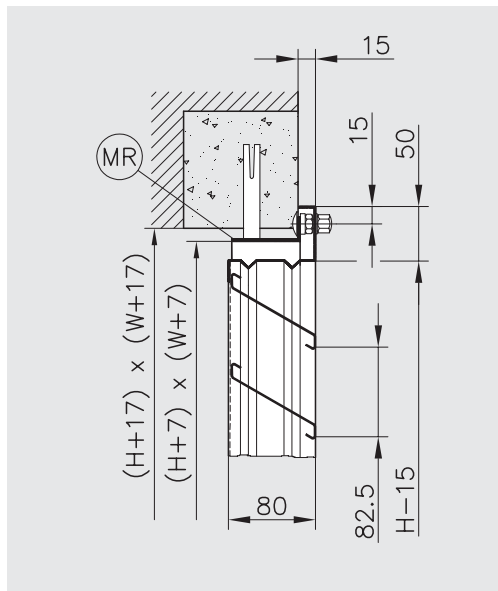
Steel / Aluminium / Aluminium anodised

Weather resistant louvres for outside air and exhaust air from ventilation and air conditioning systems. Profiled, water-repellent blades in an all-around frame for installation in external walls and with permanently mounted stainless steel protective grille with approx. 16 mm mesh size on the rear side. The free cross-sectional area is approx. 60% of the inflow cross section A_A .

- W** with frame and blades made of galvanised sheet steel
- AW** with frame and blades made of extruded aluminium profiles with untreated surfaces
- AWE** with frame and blades made of extruded aluminium profiles with natural anodised surfaces

Accessories

- MR Wall mounting frame**
made of galvanised sheet steel



Installation opening with wall mounting frame:
W x H

Sizes W x H

Width W [mm]	Height H [mm]
(300)	345 (428)
400 (500)	510 (593)
600 (700)	675 (758)
800 (900)	840 (923)
1000 (1100)	1005 (1088)
1200 (1300)	1170 (1253)
1400 (1500)	1335 (1418)
1600 (1700)	1500 (1583)
1800 (1900)	1665 (1748)
2000 (2100)	1830 (1913)
	1995 (2078)

All W and H dimensions can be combined
Dimensions in () are intermediate dimensions, especially for combinations

The specified sizes are standard dimensions with 82.5 mm blade spacing.

W weather resistant louvres are also available as standard in

- widths from 300 to 2100 mm and
- heights from 345 to 2078 mm

with any desired dimension in 1 mm steps and with a maximum of 25 blades.

Blade spacing is adjusted automatically to the height. Hence intermediate dimensions may have somewhat larger or smaller blade spacing.

AW and AWE weather resistant louvres are also available as standard in

- widths from 300 to 2100 mm

with any desired dimension in 1 mm steps.

Note: Weather resistant louvres protect wall openings against the penetration of impurities, provided these are unable to penetrate the mesh on the protective grille, and the effects of direct rain. In the case of strong winds, especially at great heights, it may not be possible to fully prevent the penetration of a small amount of rain or snow. Therefore actions should be taken to provide suitable drainage in the building.

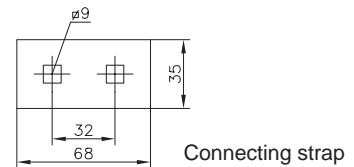
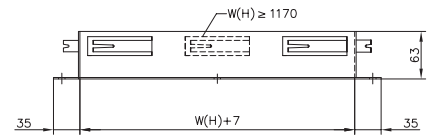
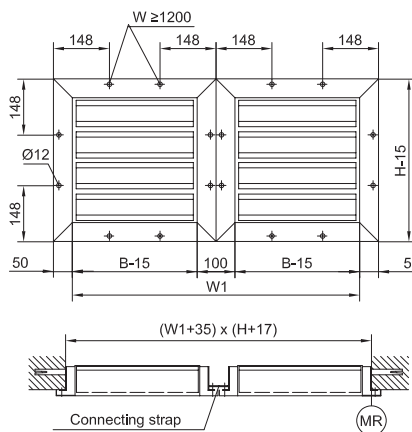
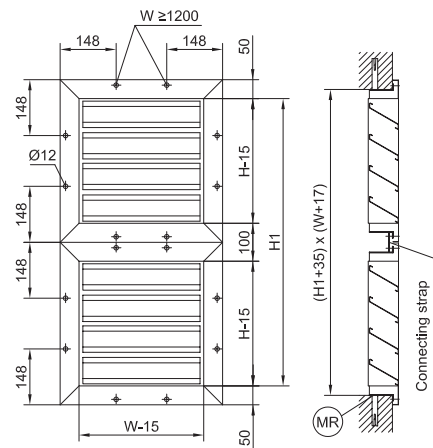
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Accessories, pressure drop, sound power level, nomenclature

Accessories

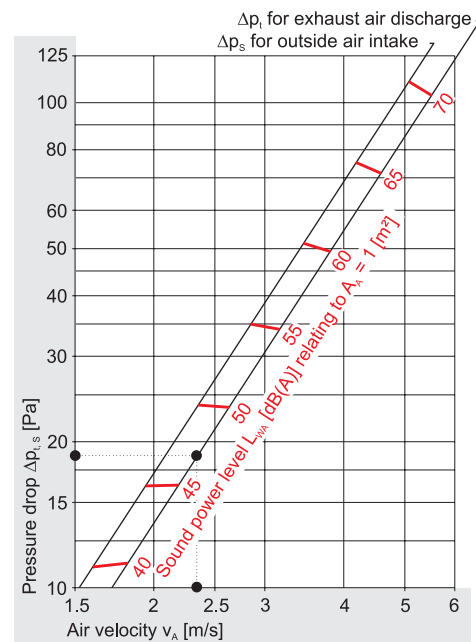
MR Wall mounting frame made of galvanised sheet steel, punched, canted, corner welded with several wall clamps for cementing.

- Connecting straps with screws for horizontal assembly of two wall mounting frames with the same height.
- Connecting straps with screws for vertical assembly of two wall mounting frames with the same width.



Weather resistant louvres are also available without drill holes in the front frame.

Pressure drop, sound power level



These sound power levels relating to inflow cross-section $A_A = 1 \text{ [m}^2\text{]}$. ΔL corrections must be added for other inflow cross-sections:

$A_A \text{ [m}^2\text{]}$	$\Delta L \text{ [dB]}$
0.10	-10
0.25	-6
0.40	-4
0.50	-3
0.60	-2
1.00	0
1.25	+1
1.60	+2
2.00	+3
2.50	+4
3.20	+5
4.00	+6

$$L_{WA} = L_{WA-1m^2} + \Delta L \text{ [dB]}$$

Example

Exhaust air volume flow rate $V = 5000 \text{ [m}^3\text{/h]}$
 Sound power level $L_{WA} = 45 \text{ [dB(A)]}$
 \Rightarrow from the nomogram page 29:
 Width $W = 800 \text{ [mm]}$
 Height $H = 840 \text{ [mm]}$
 Pressure drop $\Delta p_t = 19 \text{ [Pa]}$

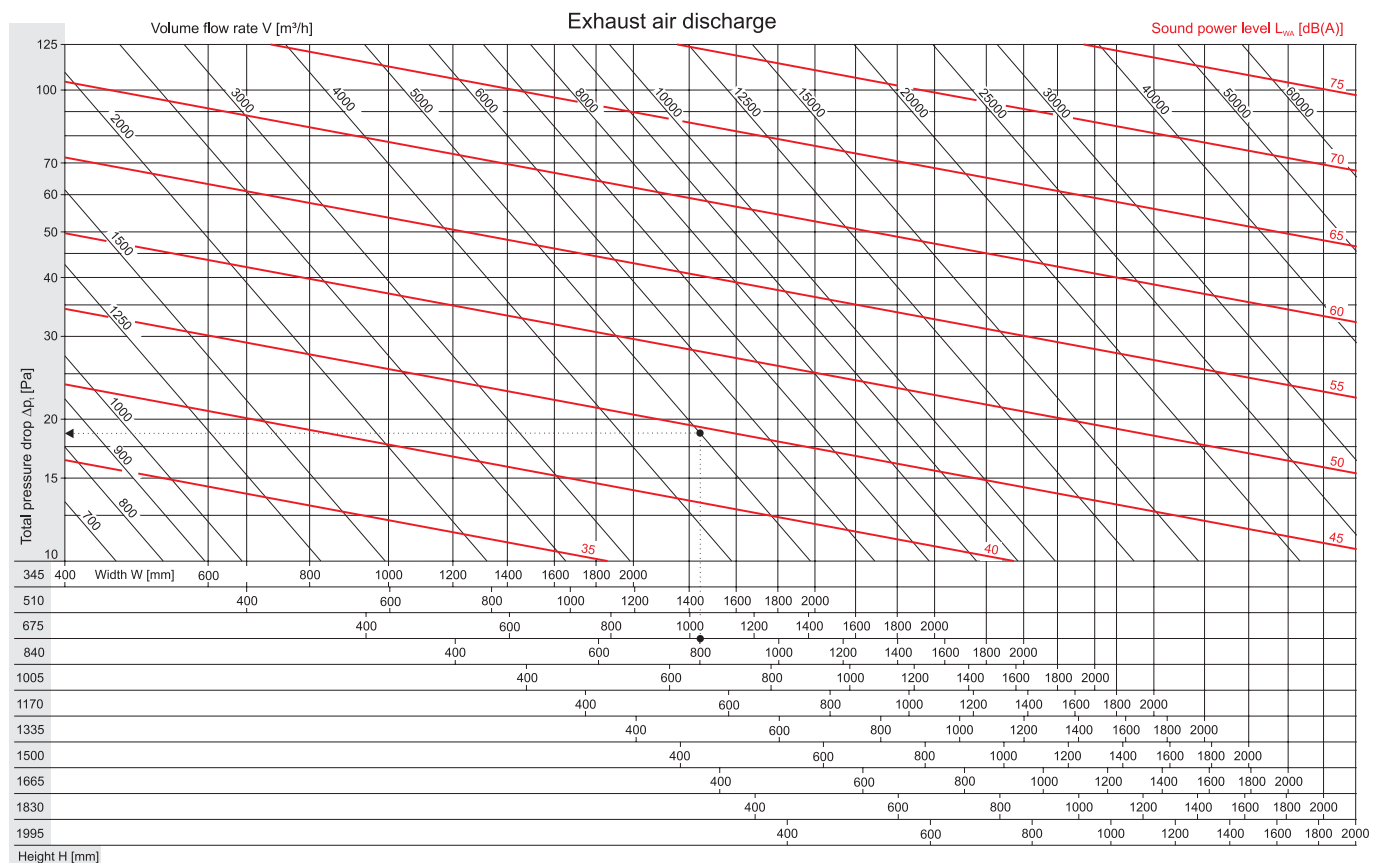
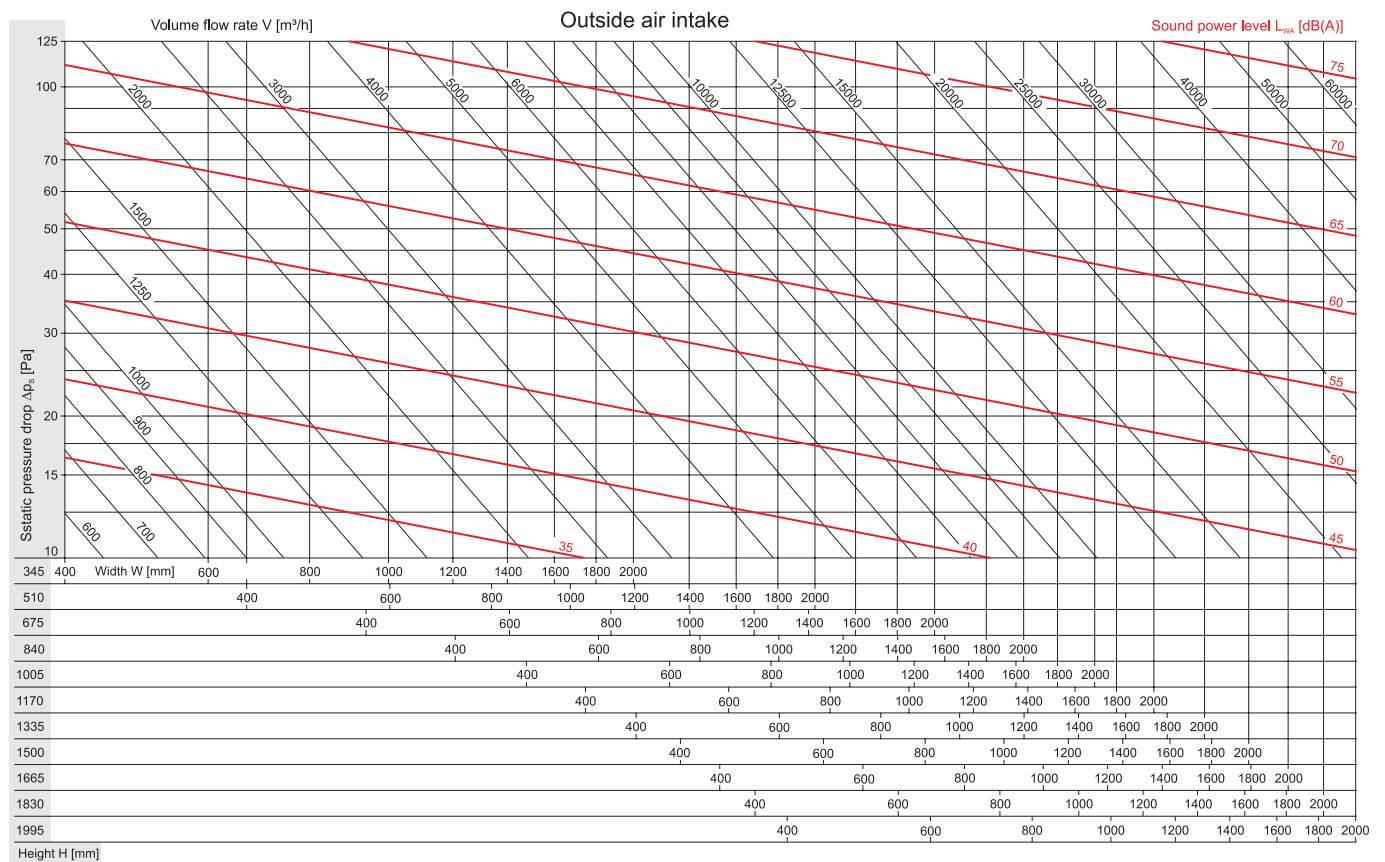
Alternatively, inflow velocity
 $v_A = 5000 \text{ [m}^3\text{/h]} / 3600 \text{ [s/h]} / 0.6 \text{ [m}^2\text{]} = 2.3 \text{ [m/s]}$
 is calculated from inflow cross-section
 $A_A = 0.8 \text{ [m]} \cdot (0.84 \text{ [m]} - 0.1 \text{ [m]}) = 0.6 \text{ [m}^2\text{]}$.
 For this inflow velocity v_A and at the same pressure drop Δp as before, a sound power level
 $L_{WA} = 47 \text{ [dB(A)]}$ relating to $A_A = 1 \text{ [m}^2\text{]}$
 can be read from the nomogram opposite, which must be corrected by
 $\Delta L = -2 \text{ [dB]}$ to
 $L_{WA} = 45 \text{ [dB(A)]}$ relating to A_A

Nomenclature

- | | |
|---|---|
| $A_A \text{ [m}^2\text{]}$ = inflow cross-section $A_A = W \cdot (H - 0.1 \text{ [m]})$ | $\Delta p_s \text{ [Pa]}$ = static pressure drop (for outside air intake) |
| $V \text{ [m}^3\text{/h]}$ = volume flow rate | $L_{WA} \text{ [dB(A)]}$ = A-weighted sound power level |
| $v_A \text{ [m/s]}$ = flow velocity relating to A_A | $\Delta L \text{ [dB]}$ = correction to L_{WA} relating to $A_A = 1 \text{ [m}^2\text{]}$ |
| $\Delta p_t \text{ [Pa]}$ = total pressure drop (for exhaust air discharge) | |

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Selection



W, AW, AWE Weather Resistant Louvres

Order information, specification text

Weather resistant louvre*
 steel, galvanised W
 aluminium, untreated AW
 aluminium, natural anodised AWE

Size
 nominal size W x H x
 => see page 27

Wall mounting frame*
 with wall mounting frame MR
 => see page 28

Special colour (only for W and AW)
 RAL

Front frame drill holes*
 if not required:
 without front frame drill holes

*) The following accessories are provided for **fastening** of weather resistant louvres:

- with front frame drill holes and no wall mounting frame: galvanised hexagonal bolts and plastic dowels
- with front frame drill holes and wall mounting frame: galvanised mushroom head bolts and galvanised cap nuts
- without front frame drill holes: none - mounting accessories must be provided by the customer

Straps for combining two wall mounting frames for weather resistant louvres must be ordered separately:

Z-LU1	for widths < 1000 mm	same width arranged
Z-LU2	for widths ≥ 1000 mm	one upon the other!
Z-LN1	for heights < 1005 mm	same height arranged
Z-LN2	for heights ≥ 1005 mm	alongside!

Weather resistant louvres to protect against the direct penetration of rain and coarse impurities, for outside air intake and exhaust air. Made of galvanised steel, with all-around profile front frame, horizontal, water-repellent profile blades and permanently mounted stainless steel protective grille with 16 mm mesh size on the rear side. Screw mounting via drill holes in frame and with wall mounting frame made of galvanised sheet steel.

..... pieces

Volume flow rate: m³/h

Manufacturer: **WILDEBOER®**

Type: W

Dimension W x Hx..... mm

Complete with fasteners supply:

install:

Weather resistant louvres to protect against the direct penetration of rain and coarse impurities, for outside air intake and exhaust air. Made of untreated / natural anodised aluminium, with all-around profile front frame, horizontal, water-repellent profile blades and permanently mounted stainless steel protective grille with 16 mm mesh size on the rear side. Screw mounting via drill holes in frame and with wall mounting frame made of galvanised sheet steel.

..... pieces

Volume flow rate: m³/h

Manufacturer: **WILDEBOER®**

Type: AW / AWE

Dimension W x Hx..... mm

Complete with fasteners supply:

install:

Delete text in non-bold type as required!