

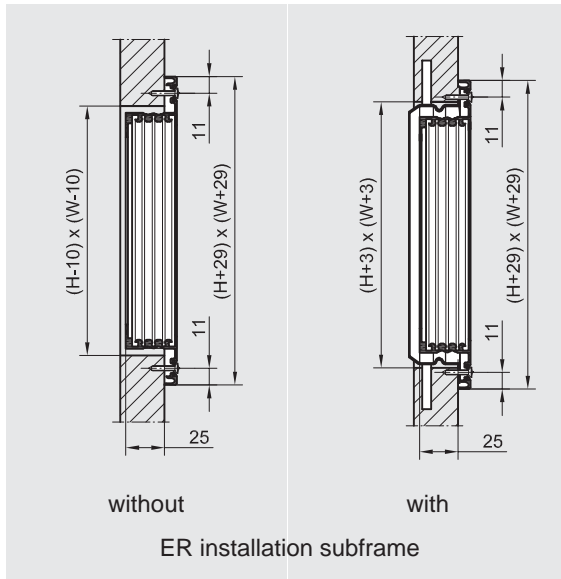


AWK Weather Resistant  
Louvres



# AWK Weather Resistant Louvres

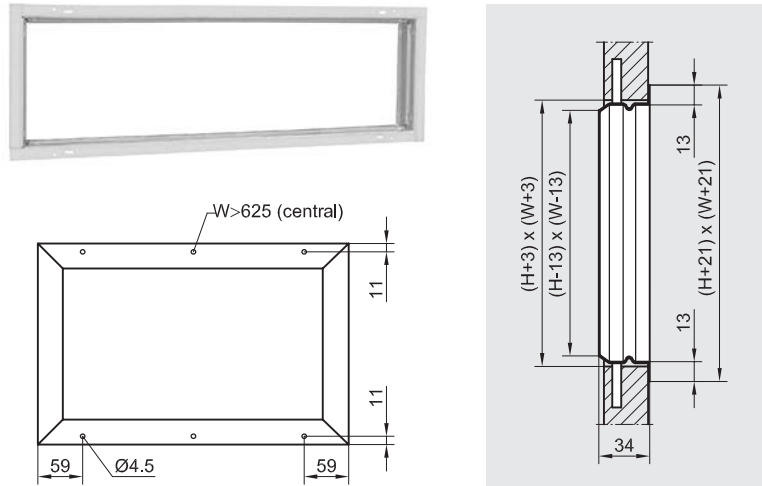
Installation, installation subframe, nomenclature, pressure drop, sound power level



## ER installation subframe

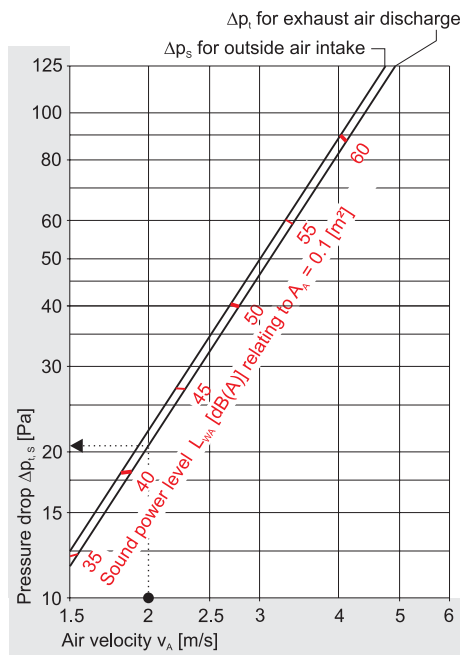
Installation subframe with wall clamps, made of profiled, galvanized sheet steel with pluggable corner joints.

Nominal W and H sizes correspond to weather resistant louvres.



Installation with raised countersunk head screws 4.2 x 16 DIN 7973; with or without installation subframe.

## Pressure drop, sound power level



These sound power levels are applicable to an inflow cross-section  $A_A = 0.1 \text{ [m}^2\text{]}$ .  $\Delta L$  corrections must be added as required.

## Free cross-sections $A_{free} \text{ [m}^2\text{]}$

Height H [mm]	Width W [mm]							
	225	325	425	525	625	825	1025	1225
125	0,006	0,009	0,013	0,016	0,019	0,025	0,031	0,038
225	0,015	0,023	0,032	0,040	0,048	0,063	0,079	0,095
325	0,025	0,038	0,051	0,063	0,076	0,100	0,126	0,151
425	0,034	0,052	0,069	0,087	0,105	0,138	0,173	0,208
525	0,043	0,066	0,088	0,111	0,133	0,175	0,220	0,265

## Inflow cross-sections $A_A \text{ [m}^2\text{]}$

Height H [mm]	Width W [mm]							
	225	325	425	525	625	825	1025	1225
125	0,010	0,015	0,021	0,026	0,031	0,042	0,053	0,064
225	0,029	0,044	0,060	0,075	0,090	0,121	0,152	0,182
325	0,048	0,073	0,098	0,124	0,149	0,200	0,250	0,301
425	0,066	0,102	0,137	0,172	0,208	0,278	0,349	0,420
525	0,085	0,131	0,176	0,221	0,267	0,357	0,448	0,539

## Correction values $\Delta L \text{ [dB]} = L_{wA} - L_{wA}$ relating to $A_A = 0.1 \text{ [m}^2\text{]}$

Height H [mm]	Width W [mm]							
	225	325	425	525	625	825	1025	1225
125	-10,0	-8,1	-6,8	-5,8	-5,0	-3,8	-2,8	-2,0
225	-5,4	-3,5	-2,3	-1,3	-0,4	+0,8	+1,8	+2,6
325	-3,2	-1,4	-0,1	+0,9	+1,7	+3,0	+4,0	+4,8
425	-1,8	+0,1	+1,4	+2,4	+3,2	+4,4	+5,4	+6,2
525	-0,7	+1,2	+2,5	+3,4	+4,3	+5,5	+6,5	+7,3

## Nomenclature

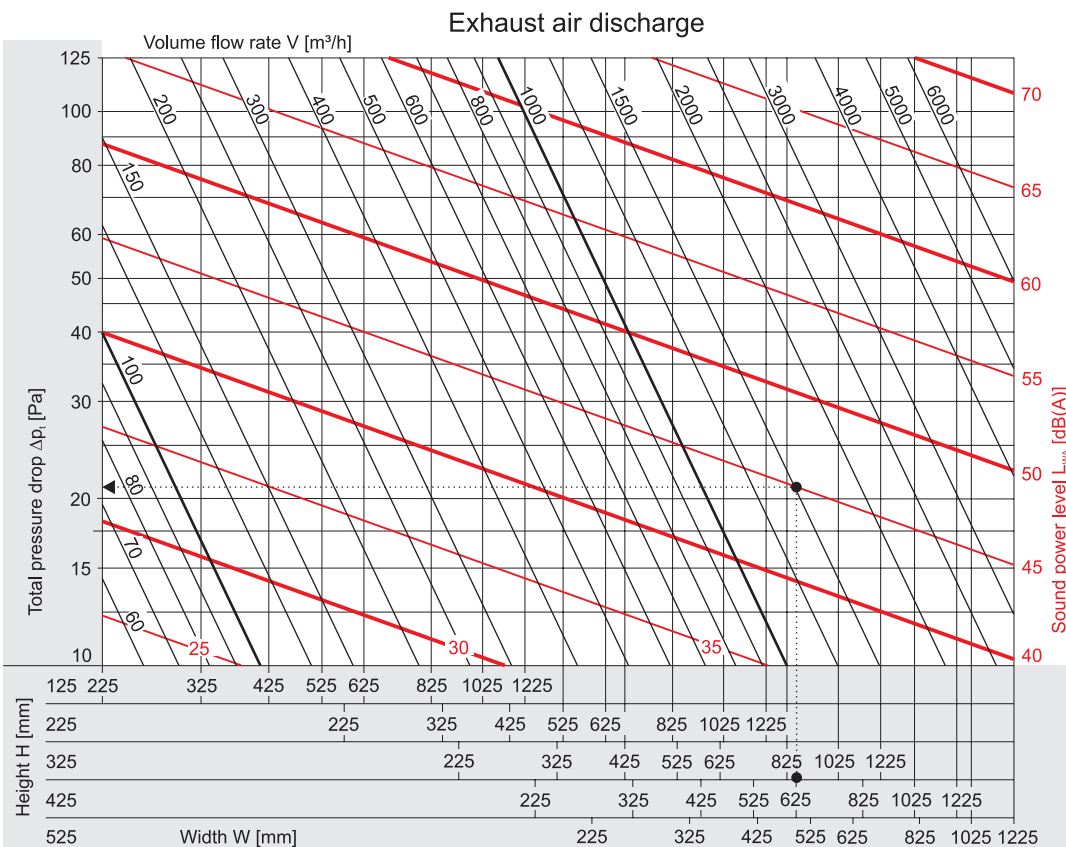
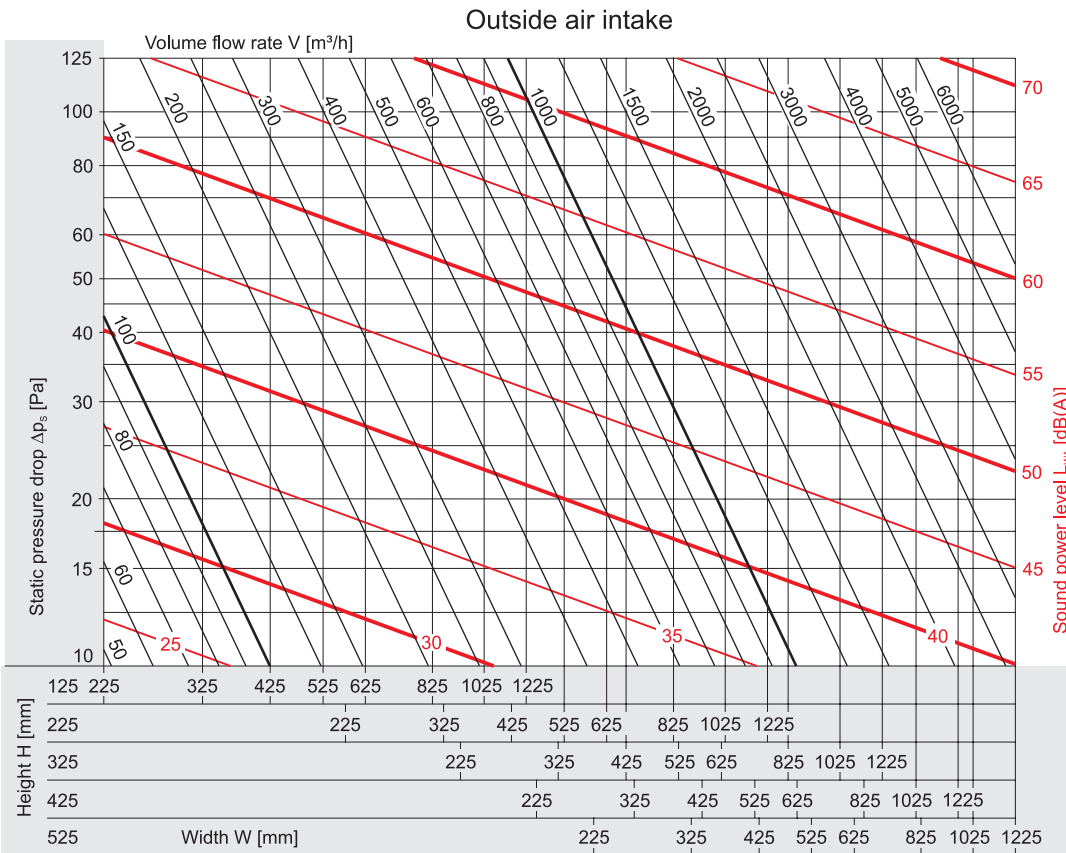
$\Delta p_t \text{ [Pa]}$  = total pressure drop (for exhaust air discharge)  
 $\Delta p_s \text{ [Pa]}$  = static pressure drop (for outside air intake)

$A_{free} \text{ [m}^2\text{]}$  = free cross-section  
 $A_A \text{ [m}^2\text{]}$  = inflow cross-section  
 $A_A = (W - 0.037 \text{ m}) \cdot (H - 0.072 \text{ m})$   
 $v_A \text{ [m/s]}$  = flow velocity relating to  $A_A$

$V \text{ [m}^3\text{/h]}$  = volume flow rate  
 $L_{wA} \text{ [dB(A)]}$  = A-weighted sound power level  
 $\Delta L \text{ [dB]}$  = correction value to  $L_{wA}$  relating to  $A_A = 0.1 \text{ [m}^2\text{]}$

# AWK Weather Resistant Louvres

## Selection



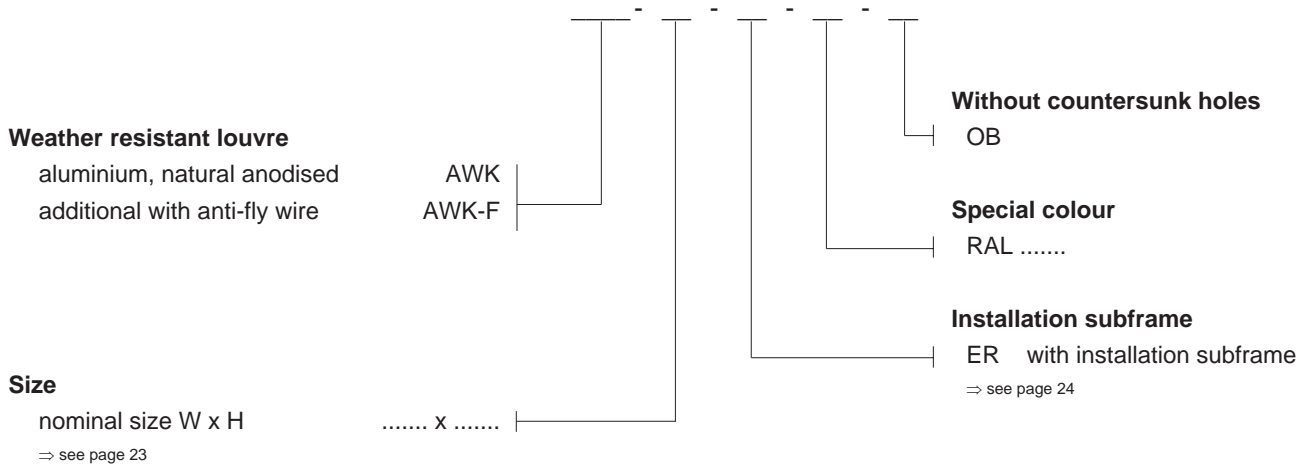
### Example

Volume flow rate  
 $V = 1500 \text{ [m}^3\text{/h]}$   
 Sound power level  
 $L_{WA} = 45 \text{ [dB(A)]}$   
 Width  
 $W = 625 \text{ [mm]}$   
 Height  
 $H = 425 \text{ [mm]}$   
 Pressure drop  
 $\Delta p_t = 21 \text{ [Pa]}$

Alternatively, inflow velocity  
 $v_A = 1500 \text{ [m}^3\text{/h]} / 3600 / 0.208 \text{ [m}^2]$   
 $v_A = 2.00 \text{ [m/s]}$   
 is calculated from inflow cross-section  
 $A_A = 0.208 \text{ [m}^2]$ .  
 For this inflow velocity  $v_A$  the nomogram on page 24 gives a sound power level  
 $L_{WA} = 41.8 \text{ [dB(A)]}$  relating to  
 $A_A = 0.1 \text{ [m}^2]$ , which is to be corrected by  
 $\Delta L = +3.2 \text{ [dB]}$  to  
 $L_{WA} = 45 \text{ [dB(A)]}$

# AWK Weather Resistant Louvres

Order information, specification text



Weather resistant louvres made of natural anodised aluminium profiles for outside air intake and exhaust air. With all-around profile front frame, horizontal, water-repellent profile blades and permanently mounted stainless steel protective grille with approx. 16 mm mesh size on the rear size and with additional anti-fly wire made of aluminium with approx. 1 mm mesh size. Fastening with screws in countersunk holes and with installation subframe made of galvanised sheet steel.

..... pieces

Volume flow rate: ..... m<sup>3</sup>/h

Manufacturer: WILDEBOER®

Type: AWK

Dimension W x H .....x.....mm

Complete with fasteners supply: .....

install: .....

Delete text in non-bold type as required!