

Air through perfection

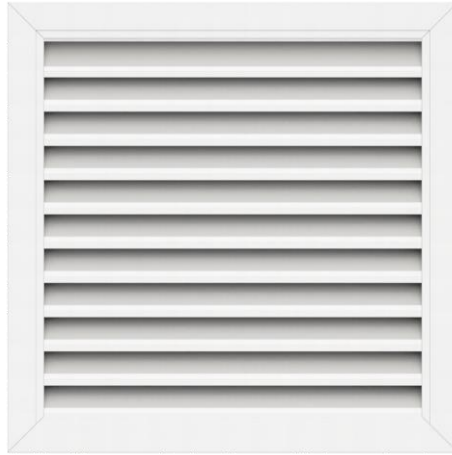
Exterior grille

WPL-S



ACP
Exterior grilles

Exterior grille WPL-S



Description

WPL-S grille is a rectangular ventilation grille, weather resistant and is used for introduction or evacuation of air. It is intended for installation on the exterior walls of buildings.

Technical specifications

Characteristics

The grille is provided with fixed anti-rain blades, positioned at 45°, parallel to the “L” (length).

WPL-S has a galvanized steel wire mesh with 10 x 10 mm mesh.

The product is made standard with mounting holes for fixing with screws.

The grille is painted with special exterior paint with high weather resistance.

The grille is supplied with fixing screws painted in the color of the product.

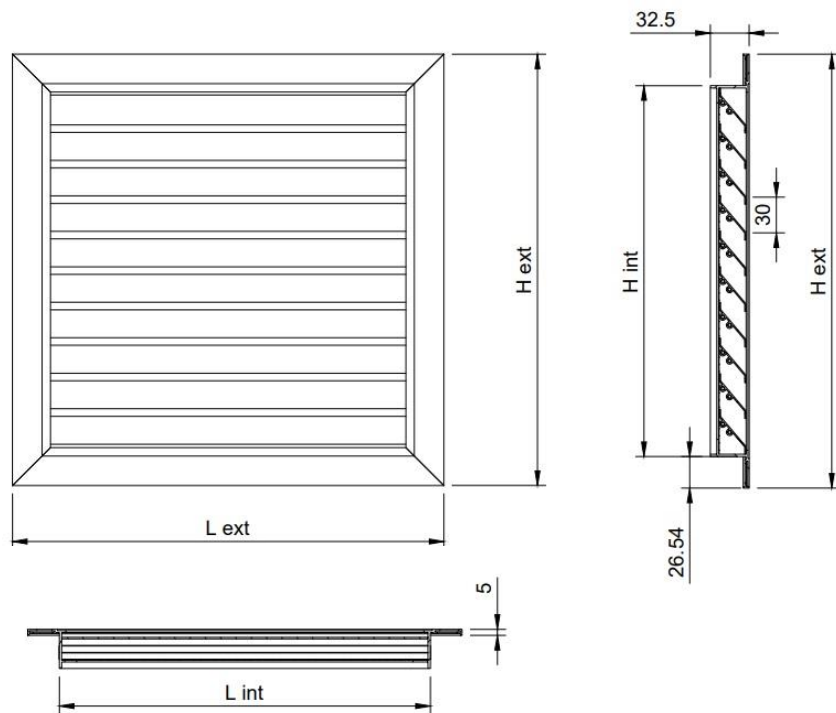
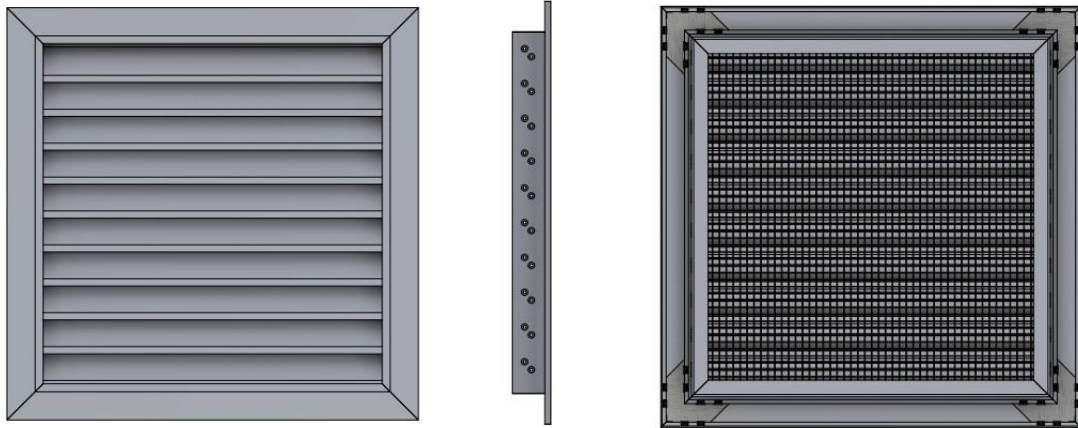
Materials

The grille is made of extruded aluminum electrostatic field painted in glossy white RAL 9016.

Other colors from the RAL palette are available on request or can be made from natural anodized aluminum profiles.

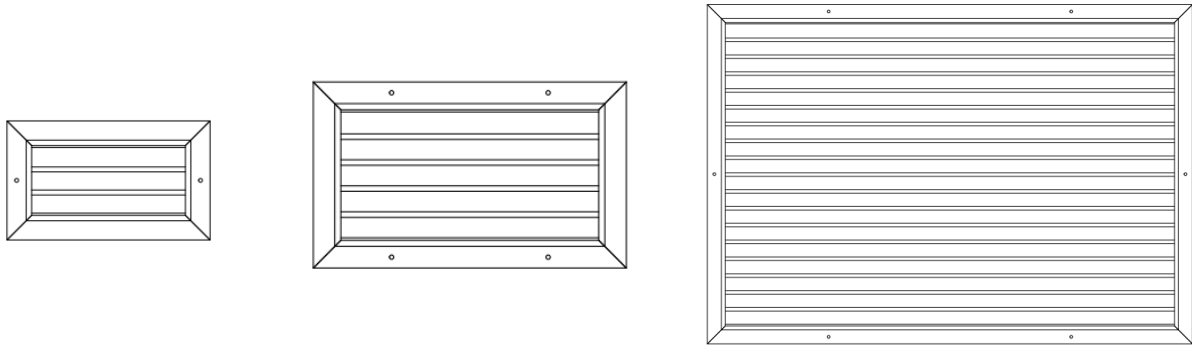
The wire mesh is made of galvanized steel with a mesh size of 10x10 mm.

Technical drawing



Product specifications

The grille is made standard with mounting holes positioned on the product frame. The number of holes and their position are made according to the size of the product, according to the pictures and table.

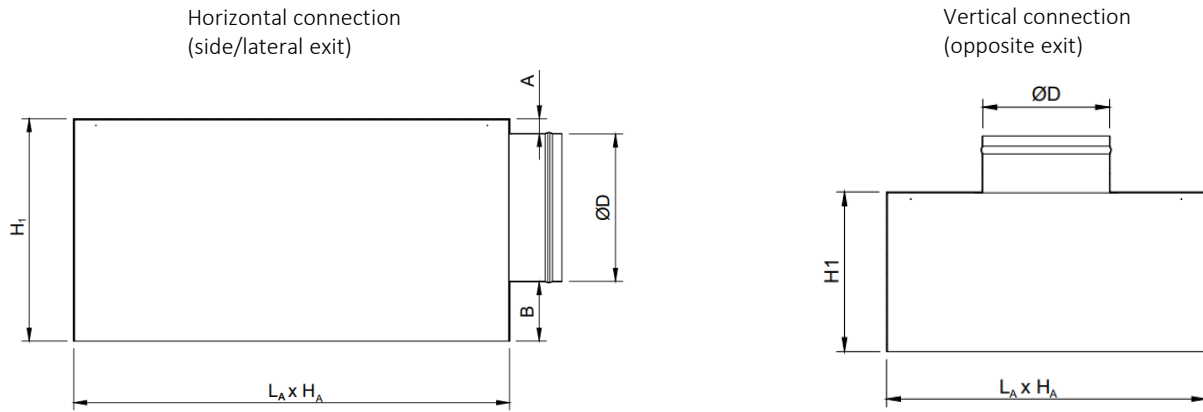


L x H [mm]	Number of holes							
	100	200	300	400	500	600	700	800
85	2	2	2	2	2	4	4	4
100	2	2	2	2	2	4	4	4
150	2	2	2	2	2	4	4	4
200	2	2	2	2	2	4	4	4
300	4	4	4	4	4	4	4	4
400	4	4	4	4	4	4	4	4
500	4	4	4	4	4	4	4	4
600	4	4	4	4	4	4	4	4
700	4	4	4	4	4	4	6	6
800	4	4	4	4	4	4	6	6

Accessories

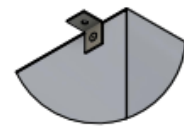
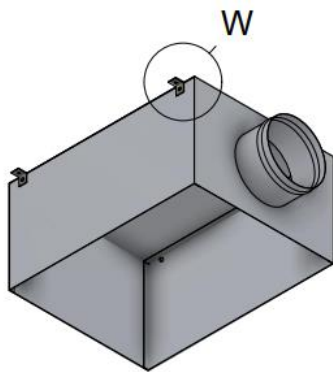
The grille can be delivered with a connecting plenum to the circular duct.

Adapter (plenum box)



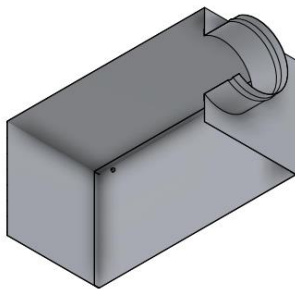
$L_A \times H_A = \text{Lint} \times \text{Hint grille} + 5 \text{ mm}$
 A, B, H_1 – depending on demand and $\varnothing D$

The adapter is made of Z140 galvanized sheet metal and is equipped with lugs for mounting.

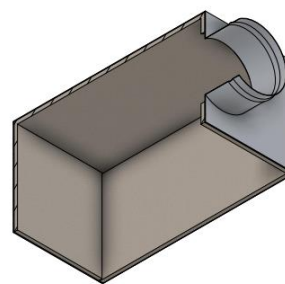


W - Suspension lug

On request, the plenum can be insulated with 6 mm thick elastomeric rubber.



AN - Uninsulated adapter



AIZ - Insulated adapter

Functional parameters

Air flow (m ³ /h)	Ak [m ²]	0.01	0.02	0.03	0.04	0.05	0.06	0.08	0.10	0.15	0.20	0.25	0.30	0.40
200	Veff [m/s]	5.6	2.8											
	ΔPt [Pa]	50	8.0											
300	Veff [m/s]		4.2	2.8										
	ΔPt [Pa]		28.0	8.0										
400	Veff [m/s]		5.6	3.9	2.8	2.3								
	ΔPt [Pa]		50.0	26.0	8.0	3.0								
500	Veff [m/s]			4.8	3.6	2.8	2.3							
	ΔPt [Pa]			38.0	20.0	8	3.0							
600	Veff [m/s]			5.8	4.3	3.4	3.0	2.2						
	ΔPt [Pa]			53.0	29.0	18.0	14.0	2						
700	Veff [m/s]				5	4.0	3.4	2.5	2.2					
	ΔPt [Pa]				40	25.0	18.0	7.0	2					
800	Veff [m/s]				5.8	4.7	3.8	2.8	2.4					
	ΔPt [Pa]				53.0	35.0	25	8	4.0					
1000	Veff [m/s]					5.5	4.8	3.5	2.8					
	ΔPt [Pa]					50	38.0	18.0	8.0					
2000	Veff [m/s]								5.8	3.8	2.8	2.4		
	ΔPt [Pa]								53.0	25.0	8.0	4.0		
3000	Veff [m/s]									5.8	4.4	3.5	2.8	2.2
	ΔPt [Pa]									53.0	30	19.0	8.0	2.0
4000	Veff [m/s]										5.6	4.6	3.8	2.8
	ΔPt [Pa]										51.0	32.0	25	8.0
5000	Veff [m/s]											5.5	4.8	3.5
	ΔPt [Pa]											50.0	37.0	18.0

Discharge area Ak [m ²]								
Height	Length [mm]							
[mm]	150	200	300	400	500	600	700	800
100	0.001	0.008	0.012	0.017	0.024	0.028	0.040	0.050
150	0.013	0.017	0.025	0.030	0.040	0.050	0.060	0.070
200	0.018	0.020	0.030	0.040	0.060	0.070	0.080	0.090
300	0.027	0.035	0.050	0.070	0.090	0.100	0.120	0.140
400	0.036	0.045	0.070	0.090	0.120	0.140	0.170	0.190
500	0.045	0.060	0.090	0.120	0.150	0.180	0.210	0.240
600	0.050	0.070	0.100	0.130	0.180	0.210	0.250	0.290
700	0.060	0.080	0.110	0.160	0.210	0.250	0.300	0.330
800	0.070	0.090	0.130	0.180	0.240	0.300	0.340	0.400

Note: For discharge areas other than those listed in the tables, the velocity and pressure drop values will be result by interpolation.

The legend

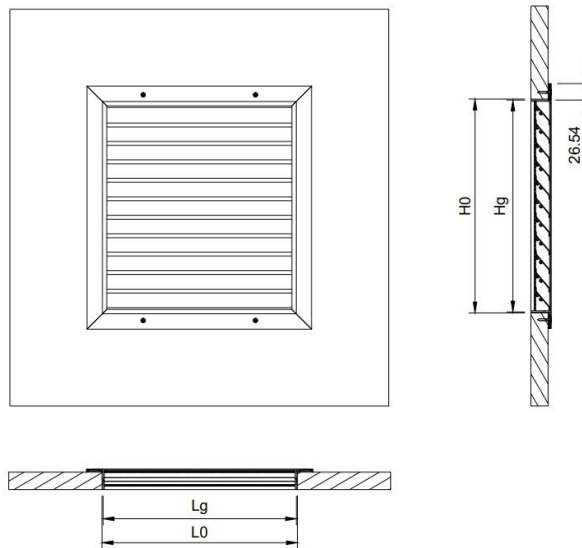
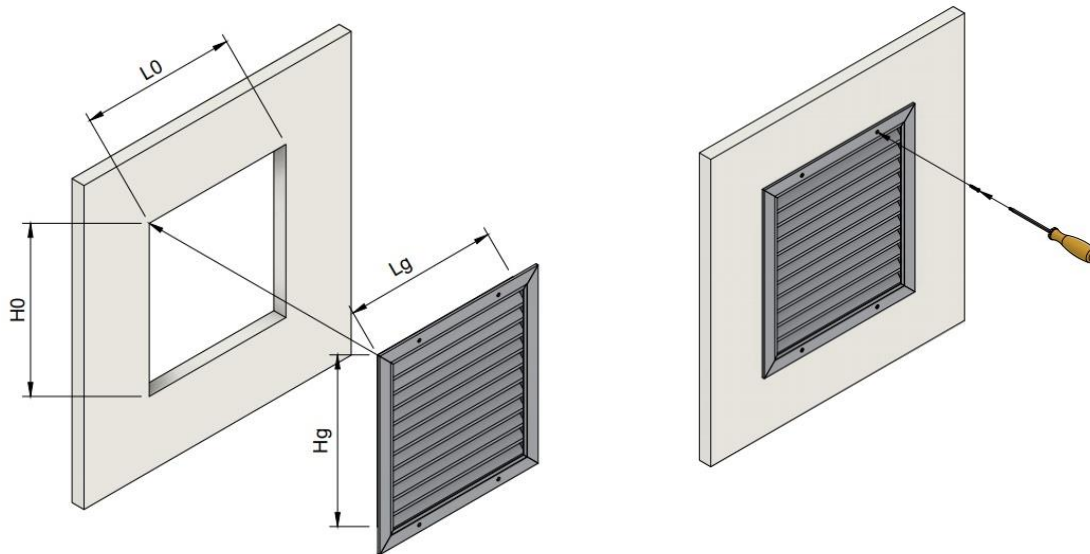
Ak [m²] - The free surface of the grille

Veff [m/s] - Effective air speed in grille

ΔPt [Pa] - Pressure loss

Installation

The mounting/fixing of the grille is done with screws.



Order code

Example on how to place an order

Type	Dimensions	Accessories	Finish
WPL-S			
On request			
AIZ - Insulated adaptor			
AN - Uninsulated adaptor			
RAL9016			
RAL.. - Other RAL colors on request			
EL - Natural anodized			