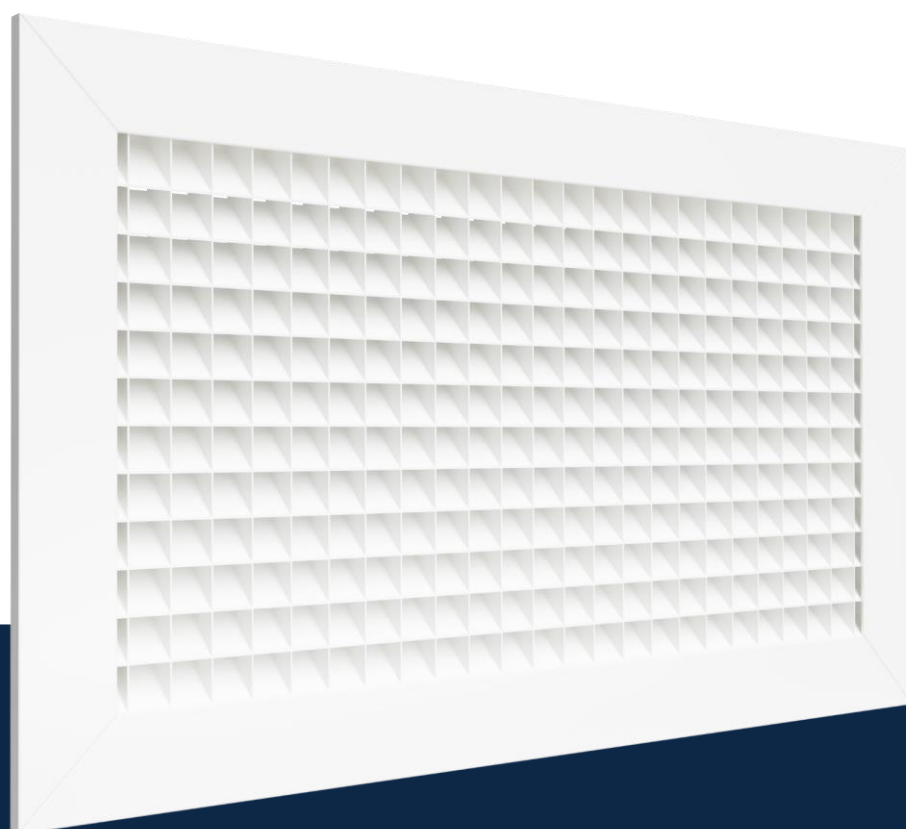


Air through perfection

Egg crate grille

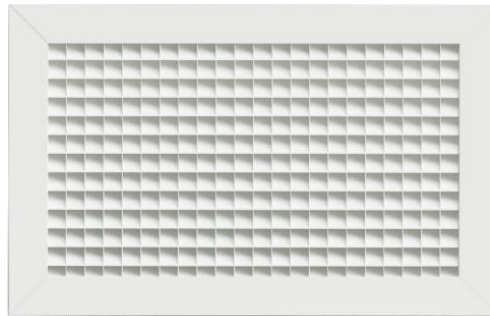
**EG-45**



**ACP**  
Grilles

[www.acp.ro](http://www.acp.ro)

## Egg crate grille EG-45



### Description

EG-45 is a return grille, made of aluminum with egg crate central part with 45° inclination.

This grille allows the evacuation of a high air flow with a minimum pressure loss.

Can be applied to wall, ceiling or rectangular duct.

### Technical specifications

#### Characteristics

The central part is egg crate type with size 12.5 x 12.5 mm and 45° inclination.

As standard, the grille is manufactured with holes for screw mounting, except for the size 595x595 mm (external dimensions) for the false ceiling 600x600 mm.

The product is delivered with fixing screws.

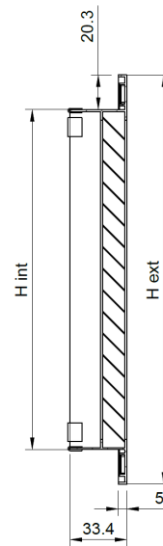
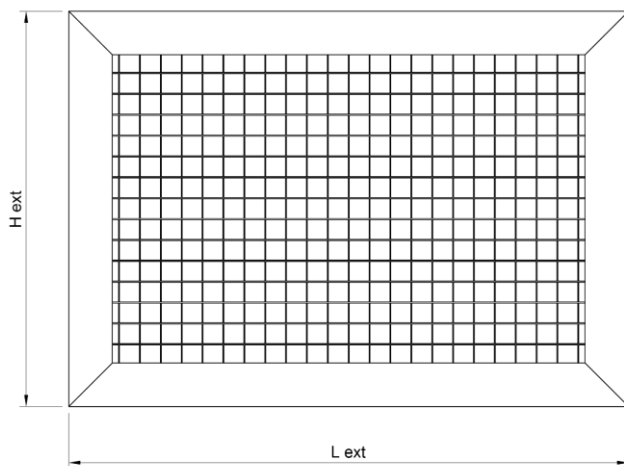
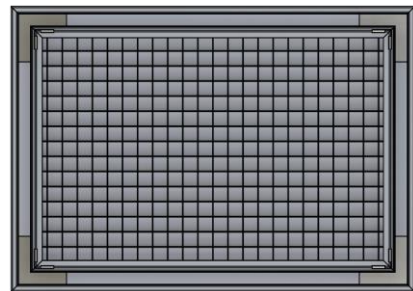
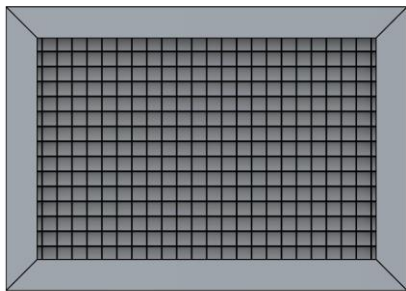
If, on request, a mounting frame is required, then the grille is accessorized with fixing clips.

## Materials

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

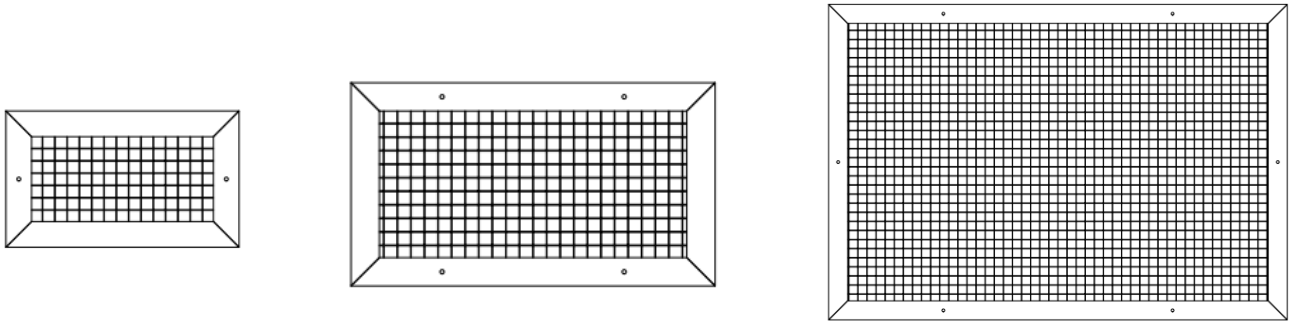
On request, the grille can be made of natural anodized aluminum profiles (frame only) or can be painted in other shades from the RAL palette.

## Technical drawing



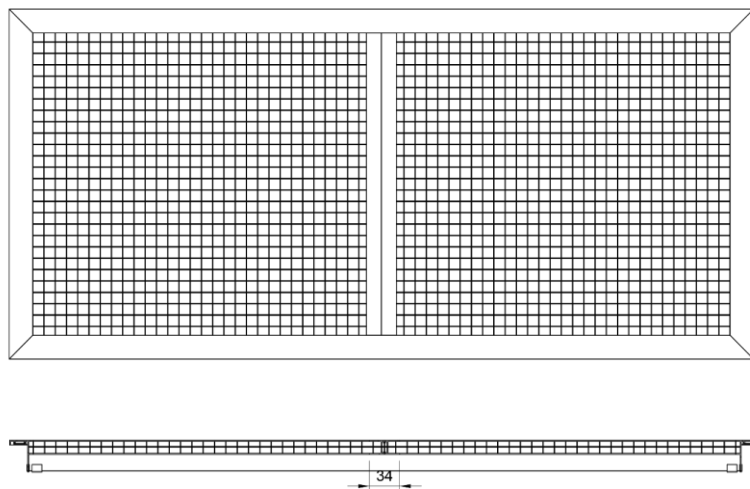
## Product specifications

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	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
85	2	2	2	2	2	4	4	4	4	4	4	6	6	6	6	6	6	8	8	8
100	2	2	2	2	2	4	4	4	4	4	4	6	6	6	6	6	6	8	8	8
150	-	2	2	2	2	4	4	4	4	4	4	6	6	6	6	6	6	8	8	8
200	-	2	2	2	2	4	4	4	4	4	4	6	6	6	6	6	6	8	8	8
300	-	-	4	4	4	4	4	4	4	4	4	6	6	6	6	6	6	8	8	8
400	-	-	-	4	4	4	4	4	4	4	4	6	6	6	6	6	6	8	8	8
500	-	-	-	-	4	4	4	4	4	4	4	6	6	6	6	6	6	8	8	8
600	-	-	-	-	-	4	4	4	4	4	4	6	6	6	6	6	6	8	8	8
700	-	-	-	-	-	-	4	4	4	4	4	6	6	6	6	6	6	8	8	8
800	-	-	-	-	-	-	-	6	6	6	6	8	8	8	8	8	8	8	8	8
900	-	-	-	-	-	-	-	-	6	6	6	8	8	8	8	8	8	8	8	8
1000	-	-	-	-	-	-	-	-	-	6	6	8	8	8	8	8	8	8	8	8

Grilles with dimensions > 1000 mm are made with stiffening elements.



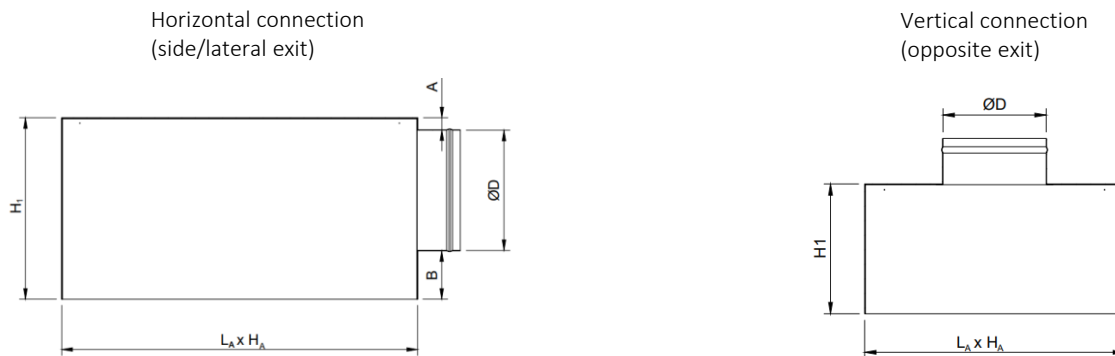
## Accessories

The grille can be accessorized with plenum box (adapter), G4 air filter, mounting frame or opposed blade damper.

### Adapter (plenum box)

The grille can be delivered with a connecting plenum to the circular duct, with horizontal or vertical connection.

The plenum is provided with suspension elements (lugs) and bead roll on the spigot, for easy fixing of the flexible duct.

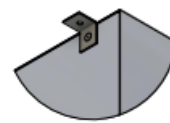
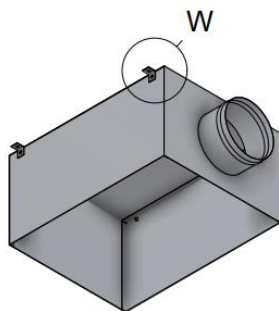


\* For fixing with screws:  $L_A \times H_A = L_{int} \times H_{int} \text{ grille} + 7 \text{ mm}$

\* For fixing with mounting frame:  $L_A \times H_A = L_c \times H_c \text{ mounting frame} + 4 \text{ mm}$

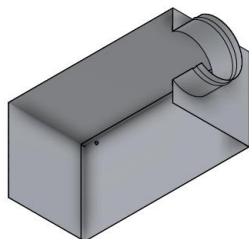
$A, B, H1$  – depending on demand and  $\varnothing D$

The adapter is made of Z140 galvanized steel sheet and is equipped with suspension lugs.

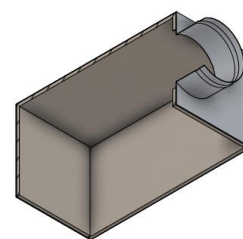


W - Suspension lug

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



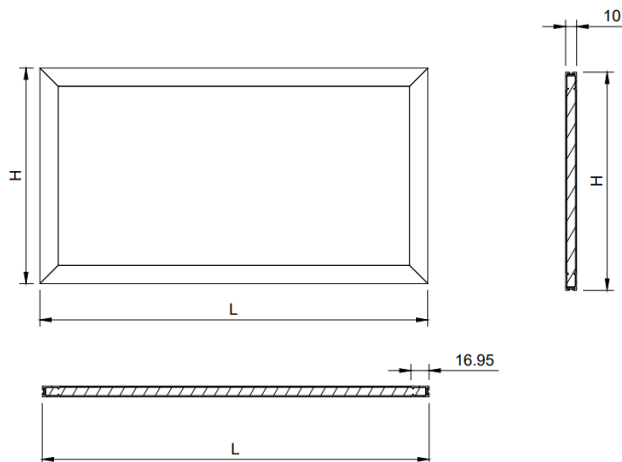
AN - Uninsulated adapter



AIZ - Insulated adapter

### Air filter G4 with frame (F-R)

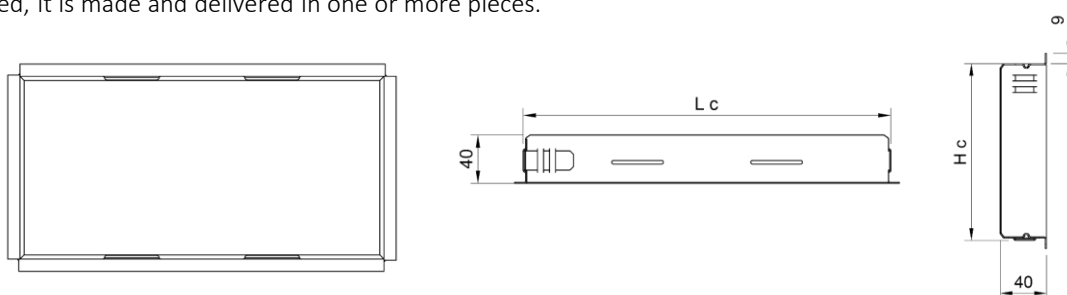
G4 air filter with aluminum frame, used for air filtration and is installed on the grille connection. The large dimensions are made in several pieces.



L x H [mm]	Air filter																			
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
85	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
100	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
150	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
200	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
300	-	-	1	1	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3
400	-	-	-	1	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3
500	-	-	-	-	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3
600	-	-	-	-	-	1	2	2	2	2	2	2	2	3	2	3	3	3	3	4
700	-	-	-	-	-	-	2	2	2	2	3	3	3	3	3	3	3	4	4	4
800	-	-	-	-	-	-	-	2	2	2	3	3	3	3	3	3	3	4	4	5
900	-	-	-	-	-	-	-	-	3	3	3	3	3	3	3	3	3	4	4	5
1000	-	-	-	-	-	-	-	-	-	3	3	3	3	3	3	3	4	4	4	5

### Mounting frame (CC)

The mounting frame is used when a hidden, easy and fast installation of the grille is desired. Depending on the size required, it is made and delivered in one or more pieces.

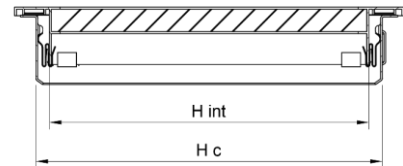
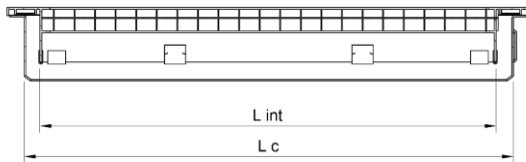


L x H [mm]	Mounting frame																			
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
85	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
100	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
150	-	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
200	-	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
300	-	-	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
400	-	-	-	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
500	-	-	-	-	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
600	-	-	-	-	-	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
700	-	-	-	-	-	-	1	1	1	1	1	2	2	2	2	2	2	2	2	2
800	-	-	-	-	-	-	-	1	1	1	1	2	2	2	2	2	2	2	2	2
900	-	-	-	-	-	-	-	-	1	1	1	2	2	2	2	2	2	2	2	2
1000	-	-	-	-	-	-	-	-	-	1	1	2	2	2	2	2	2	2	2	2

For installation with mounting frame, the grille is equipped with clips that allow quick and easy clamping. The number of clips with which the grille is equipped depends on the size of the product.

L x H [mm]	Number of mounting clips																			
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
85	2	2	4	4	4	4	4	4	4	4	6	6	6	6	6	8	8	8	8	8
100	2	2	4	4	4	4	4	4	4	4	6	6	6	6	6	8	8	8	8	8
150	-	2	4	4	4	4	4	4	4	4	6	6	6	6	6	8	8	8	8	8
200	-	2	4	4	4	4	4	4	4	4	6	6	6	6	6	8	8	8	8	8
300	-	-	4	4	4	4	4	4	4	4	6	6	6	6	6	8	8	8	8	8
400	-	-	-	4	4	4	4	4	4	4	6	6	6	6	6	8	8	8	8	8
500	-	-	-	-	4	4	4	4	4	4	6	6	6	6	6	8	8	8	8	8
600	-	-	-	-	-	6	6	6	6	6	6	6	6	6	6	10	10	10	10	10
700	-	-	-	-	-	-	6	6	6	6	10	10	10	10	10	10	10	10	10	10
800	-	-	-	-	-	-	-	8	8	8	10	10	10	10	10	10	10	10	10	10
900	-	-	-	-	-	-	-	-	8	8	10	10	10	10	10	14	14	14	14	14
1000	-	-	-	-	-	-	-	-	-	12	12	12	12	12	12	14	14	14	14	14

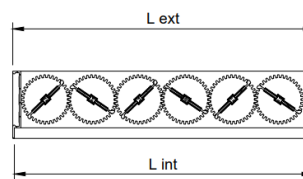
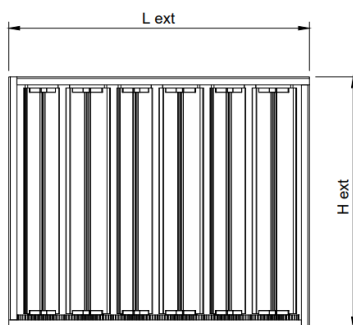
Example: EG-45 + CC



$$L_c \times H_c = L_{int} \times H_{int} \text{ grille} + 18 \text{ mm}$$

### Opposed blade damper (OBD)

The damper is provided with opposable blades and gears, it is mounted on the grille connection.



L x H [mm]	Opposed blade damper																			
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
85	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3	3	4	4	4
100	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3	3	4	4	4
150	-	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3	3	4	4	4
200	-	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3	3	4	4	4
300	-	-	1	1	1	1	2	2	2	2	2	2	3	3	3	3	3	4	4	4
400	-	-	-	1	1	1	2	2	2	2	2	2	3	3	3	3	3	4	4	4
500	-	-	-	-	1	2	2	2	2	2	3	3	3	3	3	4	4	4	4	4
600	-	-	-	-	-	2	2	4	4	4	4	4	4	4	4	5	5	5	5	5

## Functional parameters

Air flow (m <sup>3</sup> /h)	LxH Ak [m <sup>2</sup> ]	200 x 100	300 x 150	400 x 200	300 x 300	500 x 300	600 x 300	800 x 300	600 x 600	1000 x 600
		0.0101	0.0276	0.0532	0.0618	0.1083	0.1321	0.1786	0.2774	0.4760
100	V <sub>eff</sub>	2.8	1.0	0.5						
	NR [dB(A)]	24.0	12.5	6.5						
	ΔPt [pa]	13.8	2.6	1.4						
200	V <sub>eff</sub>	5.5	2.0	1.0	0.9	0.5				
	NR [dB(A)]	38.0	20.0	13.5	10.5	5.5				
	ΔPt [pa]	53.0	8.5	2.7	2.4	1.4				
300	V <sub>eff</sub>		3.0	1.6	1.3	0.8	0.6			
	NR [dB(A)]		25.5	17.0	14.0	9.0	6.0			
	ΔPt [pa]		17.0	6.2	3.8	2.1	1.6			
400	V <sub>eff</sub>		4.0	2.1	1.8	1.0	0.8	0.6		
	NR [dB(A)]		31.0	19.0	18.0	10.0	9.0	5.0		
	ΔPt [pa]		28.5	9.0	6.1	2.8	2.2	1.6		
500	V <sub>eff</sub>		5.0	2.6	2.2	1.3	1.1	0.8		
	NR [dB(A)]		37.0	24.0	22.0	13.0	12.0	8.0		
	ΔPt [pa]		43.0	13.0	9.2	3.5	2.8	2.0		
600	V <sub>eff</sub>		6.0	3.1	2.7	1.5	1.3	0.9	0.6	
	NR [dB(A)]		41.0	27.0	25.0	18.0	13.0	10.0	6.0	
	ΔPt [pa]		62.5	18.0	13.5	5.0	3.6	2.4	1.7	
700	V <sub>eff</sub>			3.7	3.1	1.8	1.5	1.1	0.7	
	NR [dB(A)]			30.0	28.0	19.0	15.0	12.0	8.0	
	ΔPt [pa]			23.0	17.0	6.4	5.5	3.1	2.3	
800	V <sub>eff</sub>			4.2	3.6	2.1	1.7	1.2	0.8	
	NR [dB(A)]			34.0	32.0	21.0	16.0	13.0	10.0	
	ΔPt [pa]			31.0	22.5	8.5	6.1	3.7	2.5	
900	V <sub>eff</sub>			4.7	4.0	2.3	1.9	1.4	0.9	0.5
	NR [dB(A)]			36.0	33.0	23.0	18.0	14.0	11.0	5.0
	ΔPt [pa]			38.0	29.0	10.0	7.3	4.9	2.7	2.0
1000	V <sub>eff</sub>				4.5	2.6	2.1	1.6	1.0	0.6
	NR [dB(A)]				35.0	24.0	20.0	18.0	14.0	8.0
	ΔPt [pa]				36.0	12.5	9.5	5.6	3.5	2.5
1500	V <sub>eff</sub>				6.7	3.8	3.2	2.3	1.5	0.9
	NR [dB(A)]				46.0	32.0	26.0	23.0	19.0	13.0
	ΔPt [pa]				75.0	26.0	18.0	9.8	5.8	3.2
2000	V <sub>eff</sub>					5.1	4.2	3.1	2.0	1.2
	NR [dB(A)]					37.0	33.0	28.0	21.0	18.0
	ΔPt [pa]					44.0	30.5	18.5	9.0	4.3
3000	V <sub>eff</sub>					7.7	6.3	4.7	3.0	1.8
	NR [dB(A)]					49.5	44.0	33.0	27.0	20.0
	ΔPt [pa]					76.5	69.0	36.0	15.7	6.8
4000	V <sub>eff</sub>							6.2	4.0	2.3
	NR [dB(A)]							44.0	31.0	22.0
	ΔPt [pa]							66.0	26.5	10.5
5000	V <sub>eff</sub>								5.0	2.9
	NR [dB(A)]								35.0	25.0
	ΔPt [pa]								41.0	15.5
6000	V <sub>eff</sub>								6.0	3.5
	NR [dB(A)]								41.0	30.0
	ΔPt [pa]								62.5	22.5
7000	V <sub>eff</sub>								7.0	4.1
	NR [dB(A)]								57.0	31.0
	ΔPt [pa]								81.0	28.0
8000	V <sub>eff</sub>									4.7
	NR [dB(A)]									36.0
	ΔPt [pa]									37.5
9000	V <sub>eff</sub>									5.3
	NR [dB(A)]									38.0
	ΔPt [pa]									48.0

The legend

Ak [m<sup>2</sup>] - The free surface

V<sub>eff</sub> [m/s] - The effective velocity of air in the grille

NR [dB (A)] - Noise level without room attenuation

ΔPt [Pa] - Pressure loss



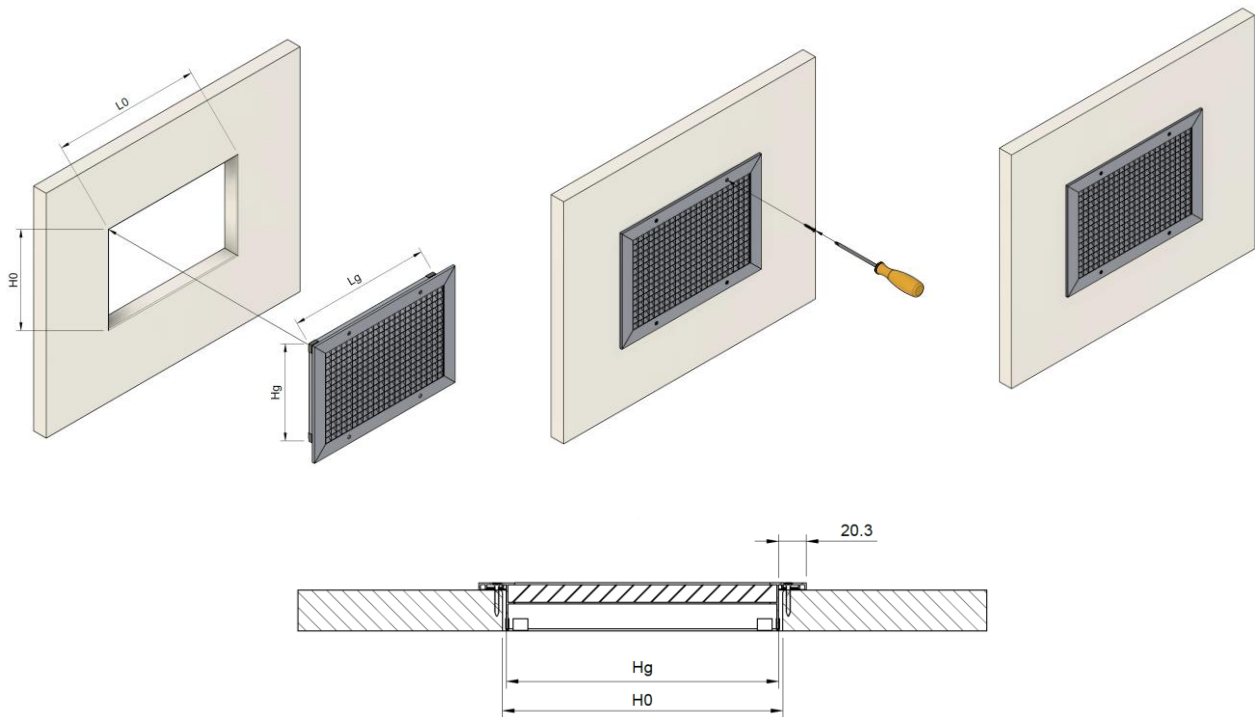
## Installation

As standard the grille is mounted by means of screws.

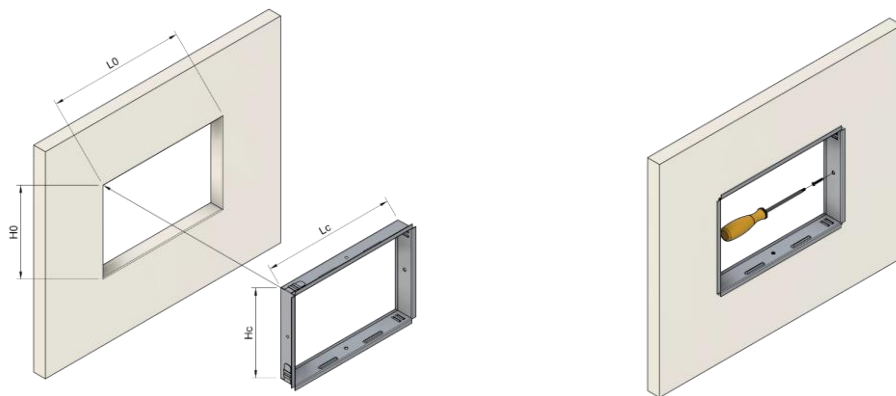
Optionally, for a hidden and easy assembly, a mounting frame can be used. The installation of the grille in the mounting frame is done by clamping.

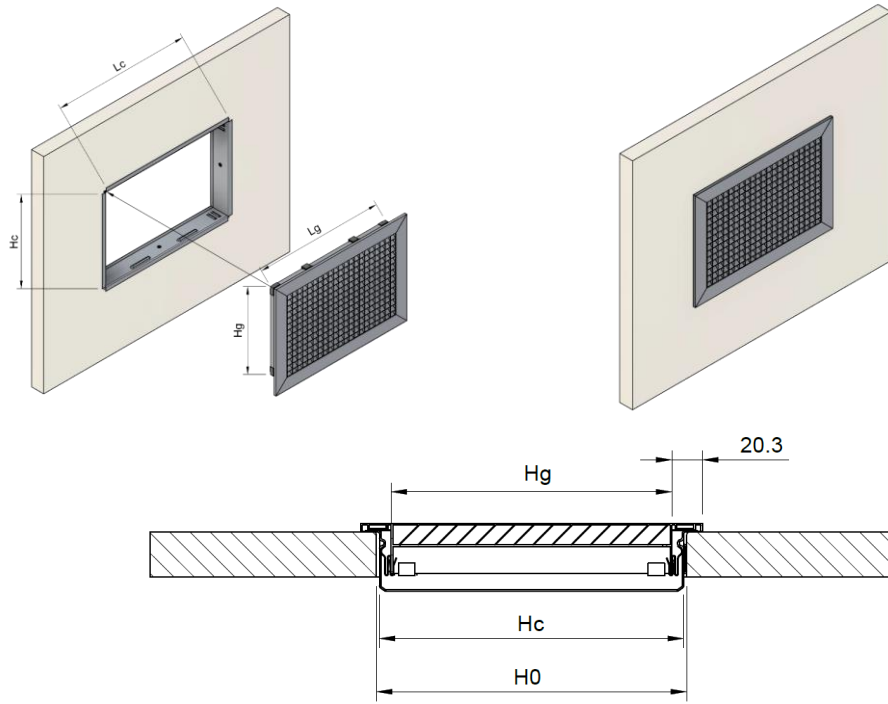
The grille with dimensions 595x595 mm (LxHext) is placed on the profile of the false suspended ceiling with size 600x600 mm (the product is made without holes).

Installation in wall or continuous ceiling with screws

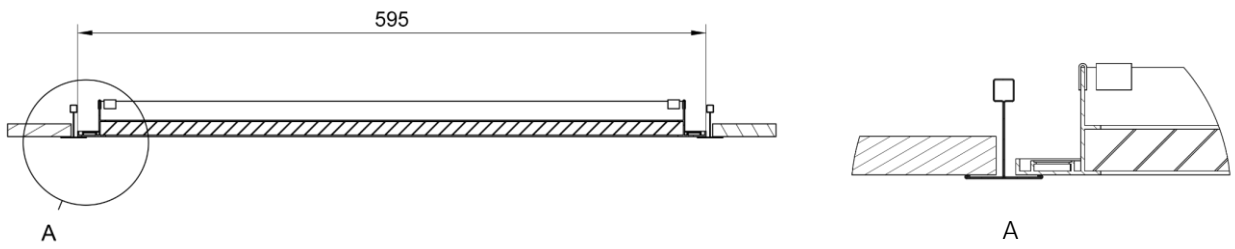


Installation in wall or continuous ceiling with mounting frame





Installation in T-bar suspended ceiling  
 EG-45 595X595 mm (external size)



### Order code

Example on how to place an order

Type	Dimensions	Accessories	Mounting	Finish
<b>EG-45</b>				
On request				
<b>F-R</b> - Air filter				
<b>AIZ</b> - Insulated adapter				
<b>AN</b> - Uninsulated adapter				
<b>OBD</b> - Control damper				
Screws (standard)				
<b>CC</b> - Mounting frame (optional)				
<b>RAL9016</b>				
<b>RAL..</b> - Other RAL colors on request				
<b>EL</b> - Natural anodized				