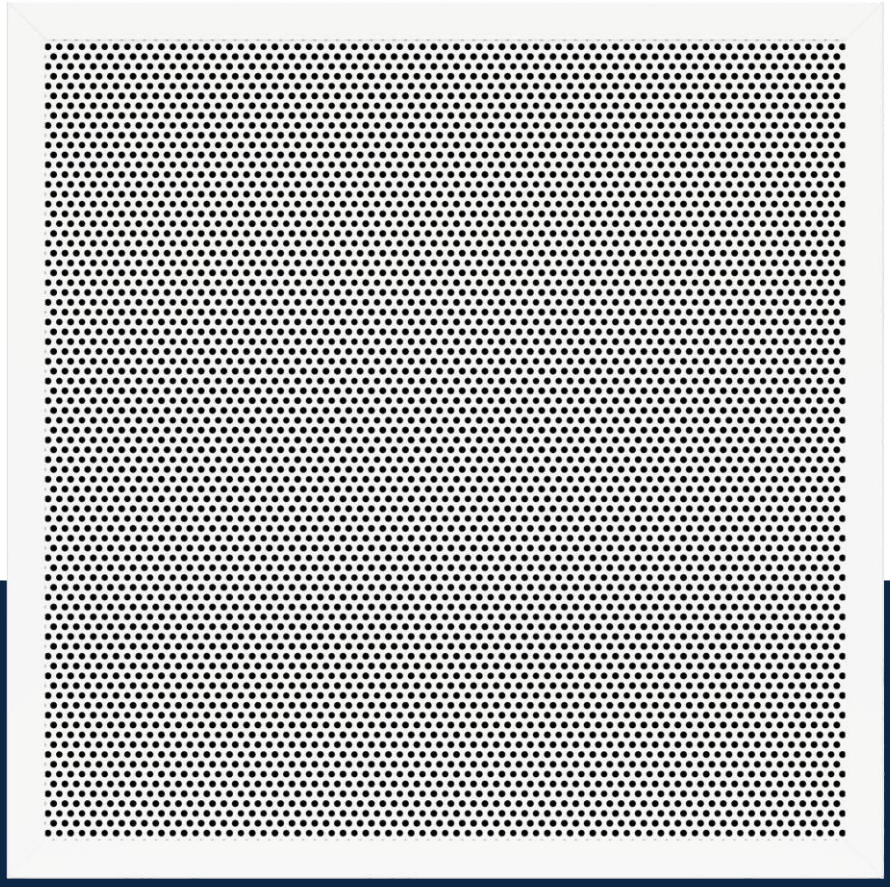
Air through perfection

Perforated grille

PF-F



ACP
Grilles

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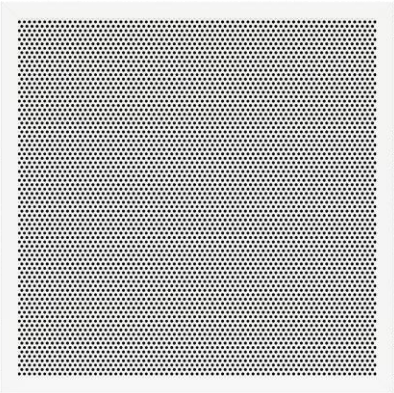
Perforated grille
PF-F



Description

Rectangular grille with circular perforations, used for introducing or evacuating air.

Perforated grille can be used in installations with constant or variable air flow with ceiling or wall mounting.

Technical specifications

Characteristics

The grille is provided with circular perforations with a diameter of 5 mm.

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.

For installation with a mounting frame, the grille is accessorized with fixing clips.

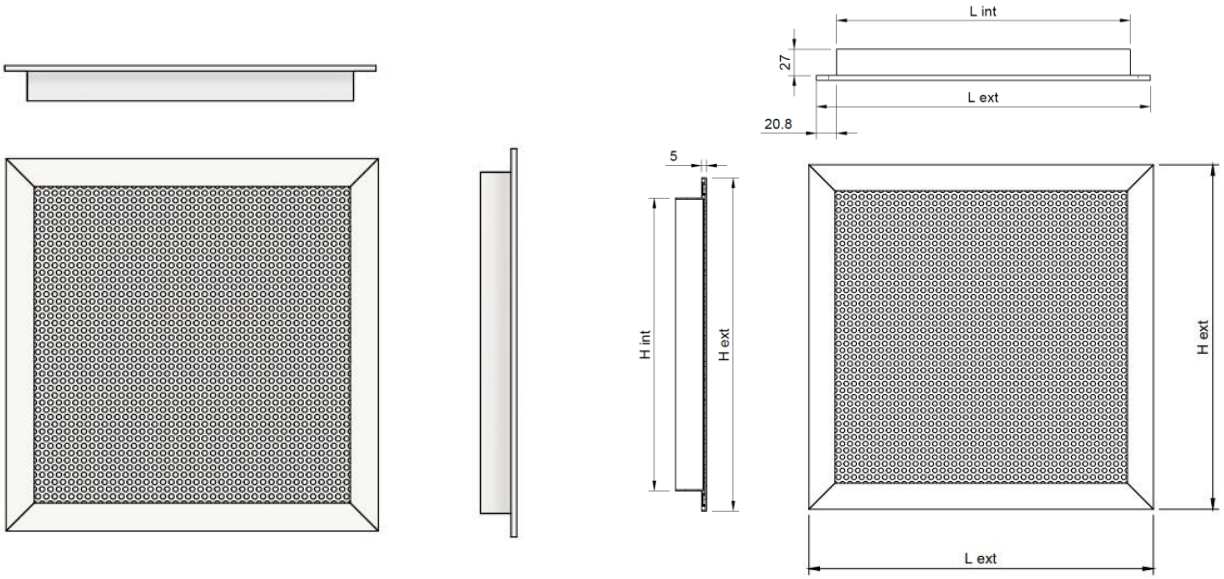
Materials

The grille is made of extruded aluminum profiles (frame) with the central part of galvanized steel sheet provided with circular perforations.

Standard grille is electrostatic field painted in glossy white RAL9016.

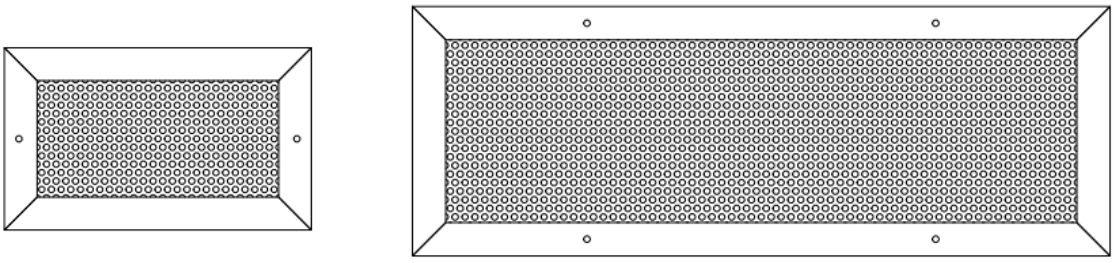
Other RAL colours are available on request.

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	800	900	1000	1100	1200	1400	1500
75	2	2	4	4	4	4	4	4	4	6	6	6	6
100	2	2	4	4	4	4	4	4	4	6	6	6	6
200	-	2	4	4	4	4	4	4	4	6	6	6	6
300	-	-	4	4	4	4	4	4	4	6	6	6	6
400	-	-	-	6	6	6	6	6	6	6	6	6	6
500	-	-	-	-	6	6	6	6	6	6	6	6	6
600	-	-	-	-	-	6	6	6	6	6	6	6	6

Accessories

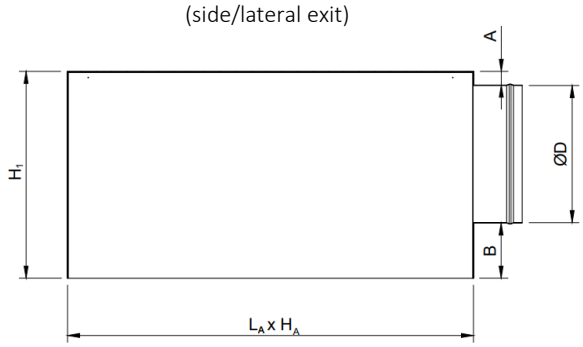
The grille can be delivered with a connecting plenum to the circular duct, with horizontal or vertical connection.

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

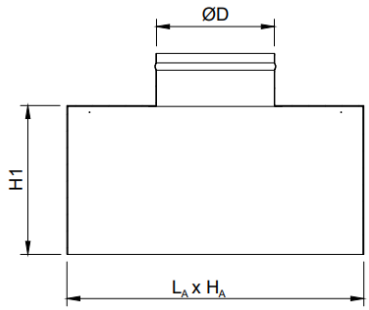
The product can be accessorized with G4 air filter, opposed blade damper or mounting frame.

Adapter (plenum box)

Horizontal connection
(side/lateral exit)

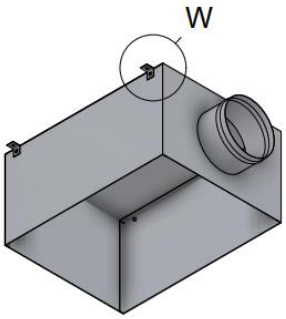


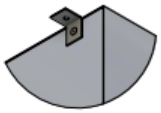
Vertical connection
(opposite exit)



* For fixing with screws: L_A X H_A = Lint x Hint grille + 5 mm
* For fixing with mounting frame: L_A X H_A = Lc x Hc mounting frame + 3 mm
A, B, H1 – depending on demand and ØD

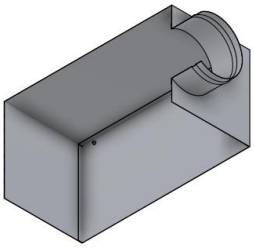
The adapter is made of Z140 galvanized steel sheet and is equipped with suspension lugs.



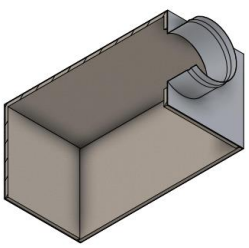


W - Suspension lug

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



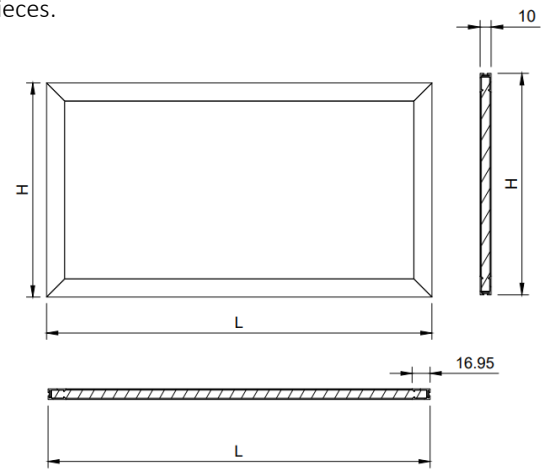
AN - Uninsulated adapter



AIZ - Insulated adapter

Air filter G4 with frame (F-R)

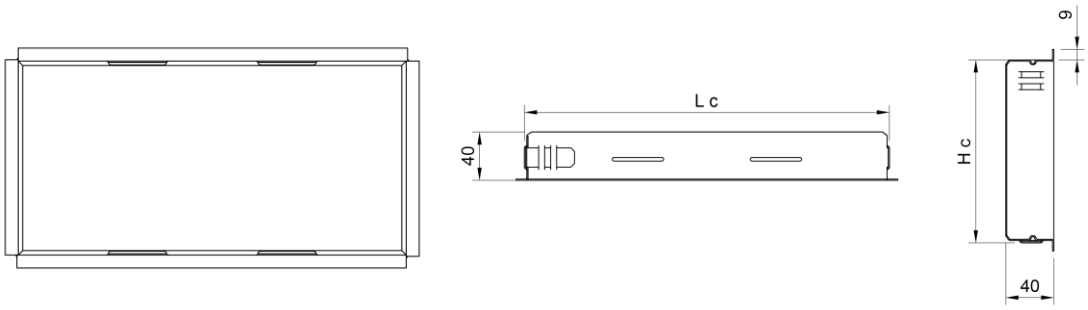
G4 air filter with aluminum frame, used for air filtration and is mounted on the grille connection. The large dimensions are made in several pieces.



L x H [mm]	Air filter													
	100	200	300	400	500	600	800	900	1000	1100	1200	1300	1400	1500
75	1	1	1	1	1	1	1	1	1	1	1	2	2	2
100	1	1	1	1	1	1	1	1	1	1	1	2	2	2
200	-	1	1	1	1	1	1	1	1	1	1	2	2	2
300	-	-	1	1	1	1	1	1	1	1	1	2	2	2
400	-	-	-	1	1	1	1	1	1	1	1	2	2	2
500	-	-	-	-	2	2	2	2	2	2	2	2	2	2
600	-	-	-	-	-	2	2	2	2	2	2	2	2	2

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.

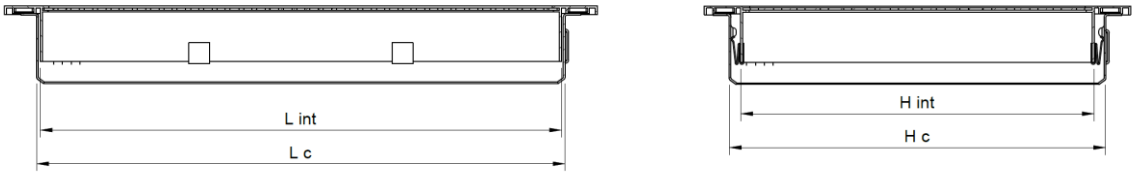


L x H [mm]	Mounting frame													
	100	200	300	400	500	600	800	900	1000	1100	1200	1300	1400	1500
75	1	1	1	1	1	1	1	1	1	1	2	2	2	2
100	1	1	1	1	1	1	1	1	1	1	2	2	2	2
200	-	1	1	1	1	1	1	1	1	1	2	2	2	2
300	-	-	1	1	1	1	1	1	1	1	2	2	2	2
400	-	-	-	1	1	1	1	1	1	1	2	2	2	2
500	-	-	-	-	1	1	1	1	1	1	2	2	2	2
600	-	-	-	-	-	1	1	1	1	1	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.

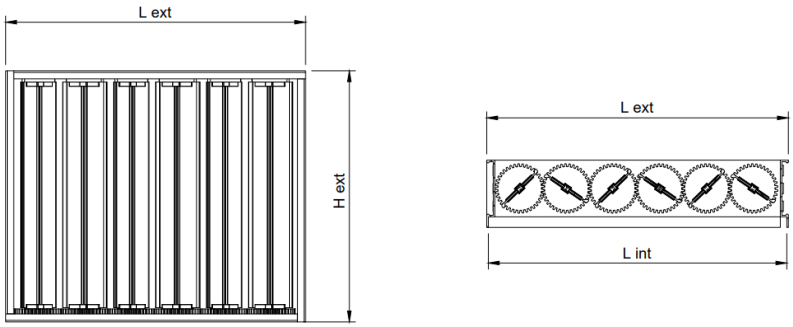
L x H [mm]	Number of mounting clips														
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
75	2	2	4	4	4	4	4	4	4	6	6	6	6	6	6
100	2	2	4	4	4	4	4	4	4	6	6	6	6	6	6
200	-	2	4	4	4	4	4	4	4	6	6	6	6	6	6
300	-	-	4	4	4	4	4	4	4	6	6	6	6	6	6
400	-	-	-	4	4	4	4	4	4	6	6	6	6	6	6
500	-	-	-	-	6	6	6	6	6	6	6	6	6	6	6
600	-	-	-	-	-	6	6	6	6	6	6	6	6	6	6

Example : PF-F + CC



Lc x Hc = Lint x Hint grille + 18 mm

Opposed blade damper (OBD)



The damper is used to adjust the air flow. It is equipped with opposable blades and gears, mounted on the grille connection. The large dimensions are made in several pieces.

L x H [mm]	Opposed blade damper														
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
75	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3
100	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3
200	-	1	1	1	1	1	2	2	2	2	2	2	3	3	3
300	-	-	1	1	1	1	2	2	2	2	2	2	3	3	3
400	-	-	-	1	1	1	2	2	2	2	2	2	3	3	3
500	-	-	-	-	2	2	2	2	3	3	3	3	3	3	4
600	-	-	-	-	-	2	2	2	3	3	3	3	3	3	4

Functional parameters

Supply

Air flow [m³/h]	LxH	300x300	400x400	500x500	600x600
	Ak [m²]	0.030	0.056	0.088	0.132
160	Veff [m/s]	1.5			
	X [m]	0.9			
	NR [dB(A)]	22.0			
	ΔPt [Pa]	9.0			
200	Veff [m/s]	1.8	1.0		
	X [m]	1.1	0.8		
	NR [dB(A)]	31.0	< 20		
	ΔPt [Pa]	14.0	4.0		
300	Veff [m/s]	2.8	1.5		
	X [m]	1.7	1.2		
	NR [dB(A)]	44.0	25.0		
	ΔPt [Pa]	31.0	8.0		
400	Veff [m/s]	3.7	2.0	1.3	
	X [m]	2.1	1.6	1.3	
	NR [dB(A)]	53.0	35.0	20.0	
	ΔPt [Pa]	53.0	15.0	5.0	
500	Veff [m/s]	4.6	2.5	1.6	
	X [m]	2.5	2.0	1.6	
	NR [dB(A)]	61.0	42.0	27.0	
	ΔPt [Pa]	81.0	23.0	8.0	
700	Veff [m/s]		3.5	2.2	1.5
	X [m]		2.2	2.2	1.8
	NR [dB(A)]		52.0	39.0	27.0
	ΔPt [Pa]		45.0	16.0	7.0
1000	Veff [m/s]		5.0	3.2	2.1
	X [m]		3.1	2.4	2.6
	NR [dB(A)]		63.0	51.0	39.0
	ΔPt [Pa]		90.0	30.0	15.0
1600	Veff [m/s]				3.4
	X [m]				3.1
	NR [dB(A)]				54.0
	ΔPt [Pa]				36.0

Extraction

Air flow [m³/h]	LxH	300x300	400x400	500x500	600x600
	Ak [m²]	0.030	0.056	0.088	0.132
160	Veff [m/s]	1.5			
	NR [dB(A)]	19.0			
	ΔPt [Pa]	20.0			
200	Veff [m/s]	1.8			
	NR [dB(A)]	20.0			
	ΔPt [Pa]	31.0			
300	Veff [m/s]	2.8			
	NR [dB(A)]	26.0			
	ΔPt [Pa]	76.0			
400	Veff [m/s]	3.7	2.0		
	NR [dB(A)]	35.0	<20		
	ΔPt [Pa]	125.0	33.0		
500	Veff [m/s]	4.6	2.5		
	NR [dB(A)]	42.0	23.0		
	ΔPt [Pa]	185.0	47.0		
700	Veff [m/s]		3.5	2.2	
	NR [dB(A)]		34.0	20.0	
	ΔPt [Pa]		95.0	37.0	
1000	Veff [m/s]			3.2	2.1
	NR [dB(A)]			31.0	20.0
	ΔPt [Pa]			73.0	33.0
1600	Veff [m/s]				3.4
	NR [dB(A)]				36.0
	ΔPt [Pa]				85.0

The legend
Ak [m²] - The free surface
Veff [m/s] - The effective velocity of air in the grille
NR [dB (A)] - Noise level without room attenuation
X [m] - The length of the air jet at a speed of 0.2 m/s
ΔPt [Pa] - Pressure loss

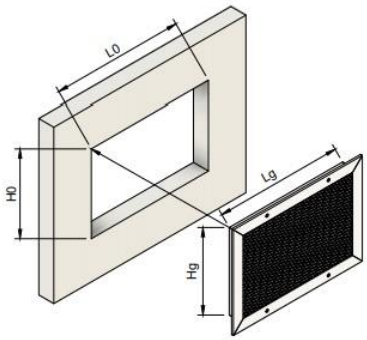
Installation

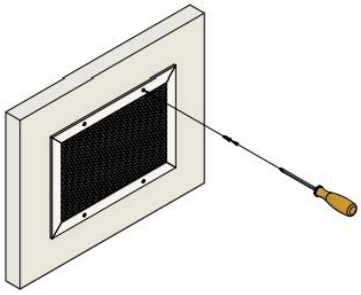
As standard the grille is mounted by means of screws.

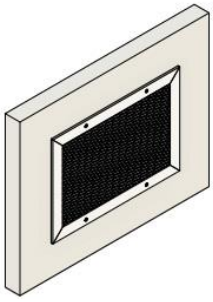
Optionally, for a hidden and easy assembly, a mounting frame can be used. The installation of the grille in the mounting frame is done by clamping.

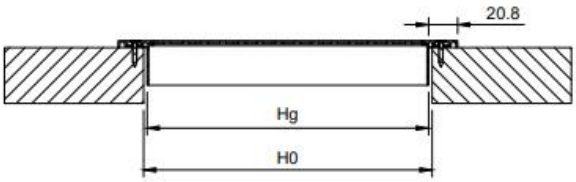
The grille with dimensions 595x595 mm (LxHext) is placed on the profile of the false suspended ceiling with size 600x600 mm (the product is made without holes).

Installation with screws

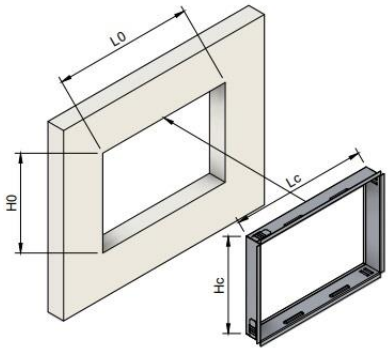


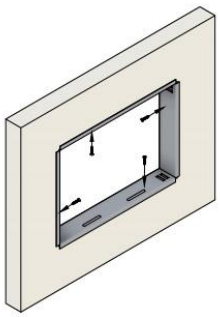


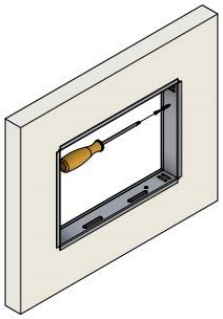


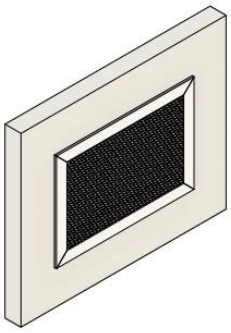


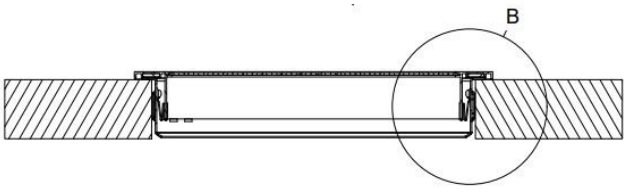
Installation with mounting frame

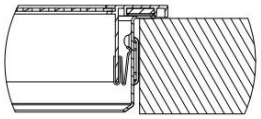






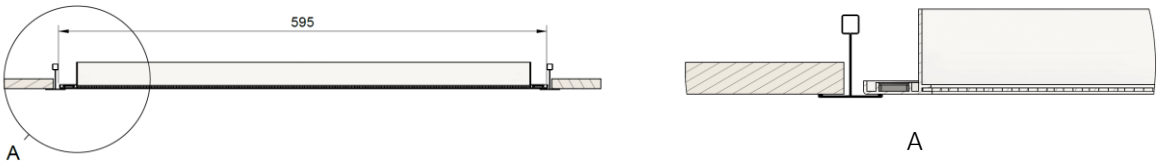






B

Installation in T-bar suspended ceiling
PF-F 595x595 mm (external size)



Order code

Example on how to place an order

Type	Dimensions	Accessories	Mounting	Finish
PF-F				
On request				
F-R - Air filter G4				
OBD - Control damper				
AIZ - Insulated adapter				
AN - Uninsulated adapter				
Screws (standard)				
CC - Mounting frame (optional)				
RAL9016				
RAL..- Other RAL colors on request				