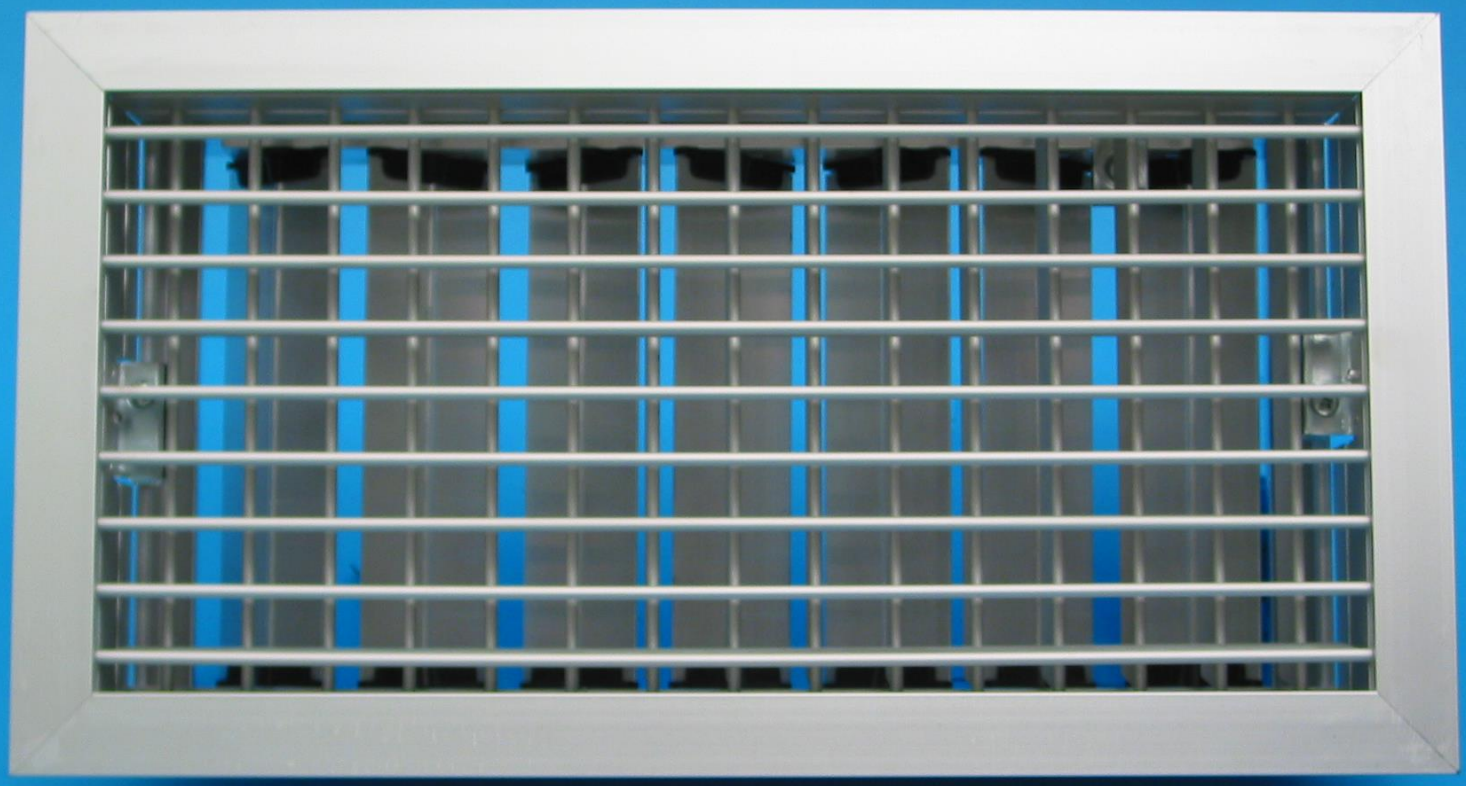
Euroclima DIFUSIÓN, SA



E-HV

Outlet grille with horizontal and vertical moving blades.

Euroclima Difusión S.A
Manlleu, Barcelona
España

Tel. (+34) 93 307 55 00
Fax (+34) 93 307 19 00

www.euroclima.es
info@euroclima.es

Description E-HV

Double deflection grille with a first row of horizontal blades and another of vertical moving blades made with extruded anodized aluminum profiles.

Fixtures:

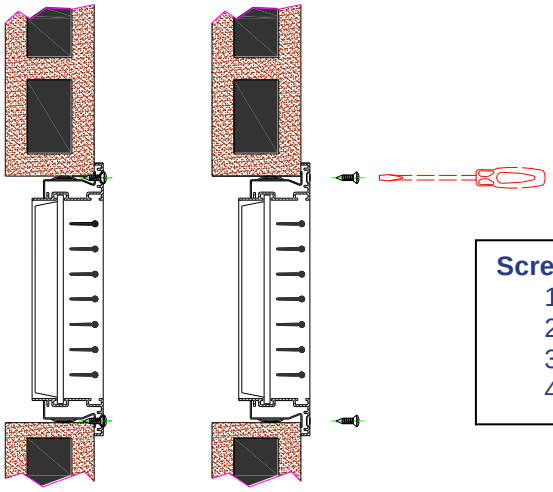
- ✓ Springs with frame E-MM, E-MAM, E-CLIPO or mountable plenums E-PLEKIT (in the sizes in which PLEKIT is available).
- ✓ Bolts with frame E-MM, E-MAM or E-TACO.
- ✓ Screws with frame E-MM.

Finish: Anodized or white aluminium. It can be supplied in other colours on request.

Applications: This grille is the most used to expel air from the wall, as it allows orientating the air jet in both vertical and horizontal directions, allowing the air flow to be directed to the area desired.

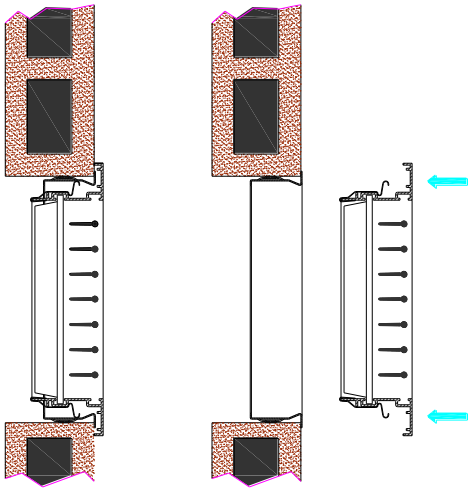
Important note: In the E-HV grille the first row of blades are horizontal and the second are vertical range.

E-HV fixtures



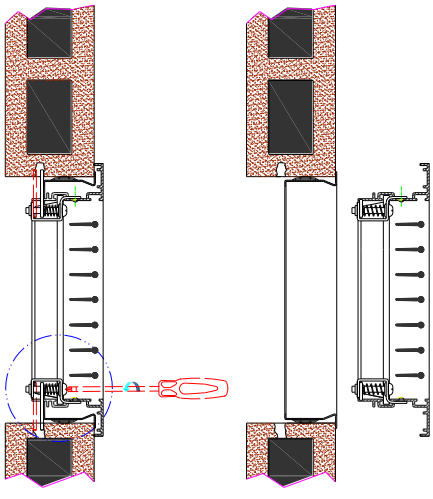
Screws:

1. Place the frame in the wall cavity.
2. Position the grille and mark the holes to be made.
3. Drill the frame and the wall at the points marked.
4. Place the grille and screw it down.



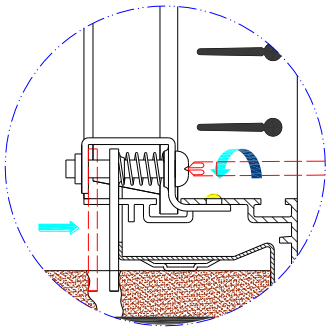
Springs:

1. Place the frame in the wall cavity.
2. Position the grille in the frame.
3. Press until the springs are fixed.



Bolts:

1. Place the bolts with the folded blades and position the grill inside the frame.
2. Unscrew each bolts' screw until the tabs are further behind than the frame (this operation may be performed before placing the grille)
3. Turn the bolt's screw in the opposite direction. The tab will lift on the first quarter turn. Then approach the E-MM frame until "making a sandwich" with it.

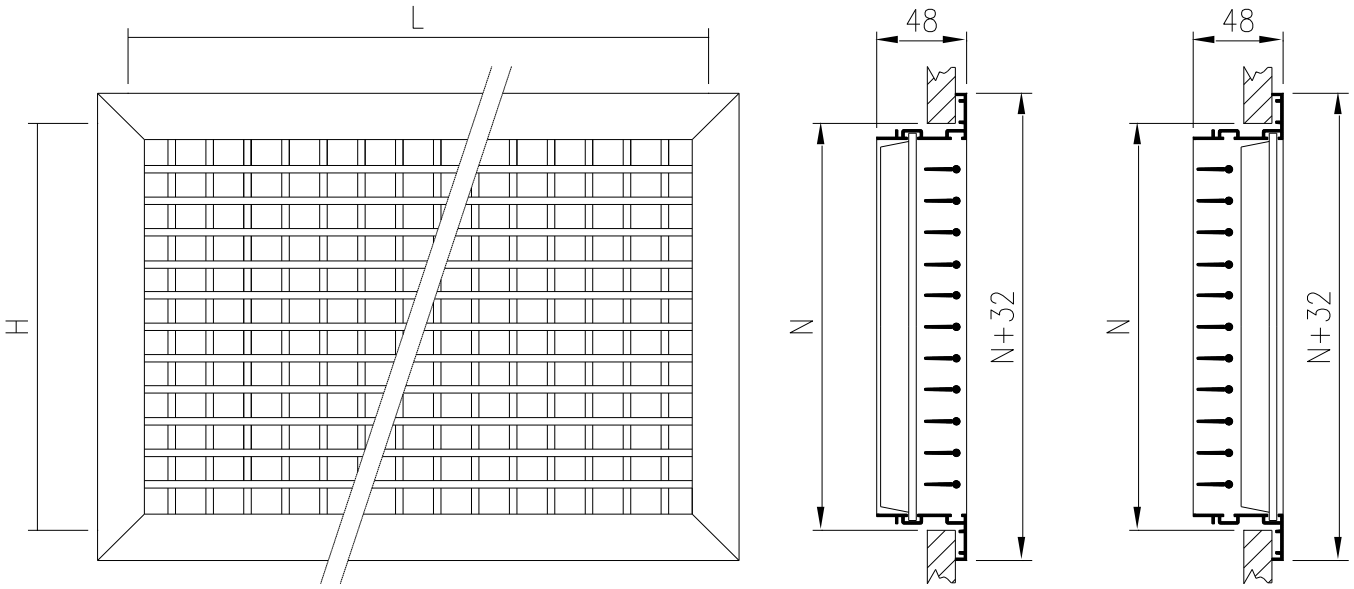


Note: The bolt fixture is not available on E-HVDP model.

Dimensions E-HV

The nominal dimensions are established by the L and H heights which coincide with the size of the hole necessary to install the grille.

SIZE OF THE HOLE	
With frame	L x H
Without frame	(L + 12) x (H + 12)

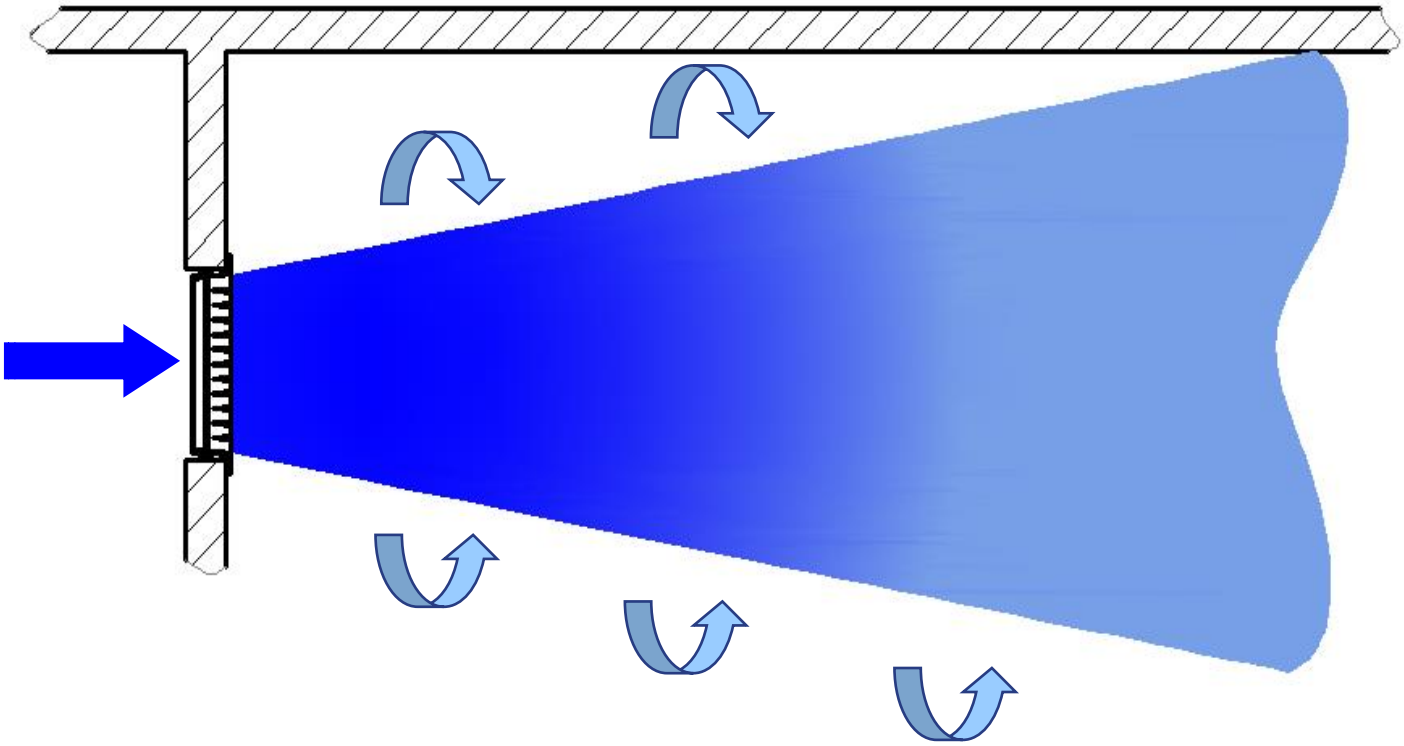


E-HV E-VH

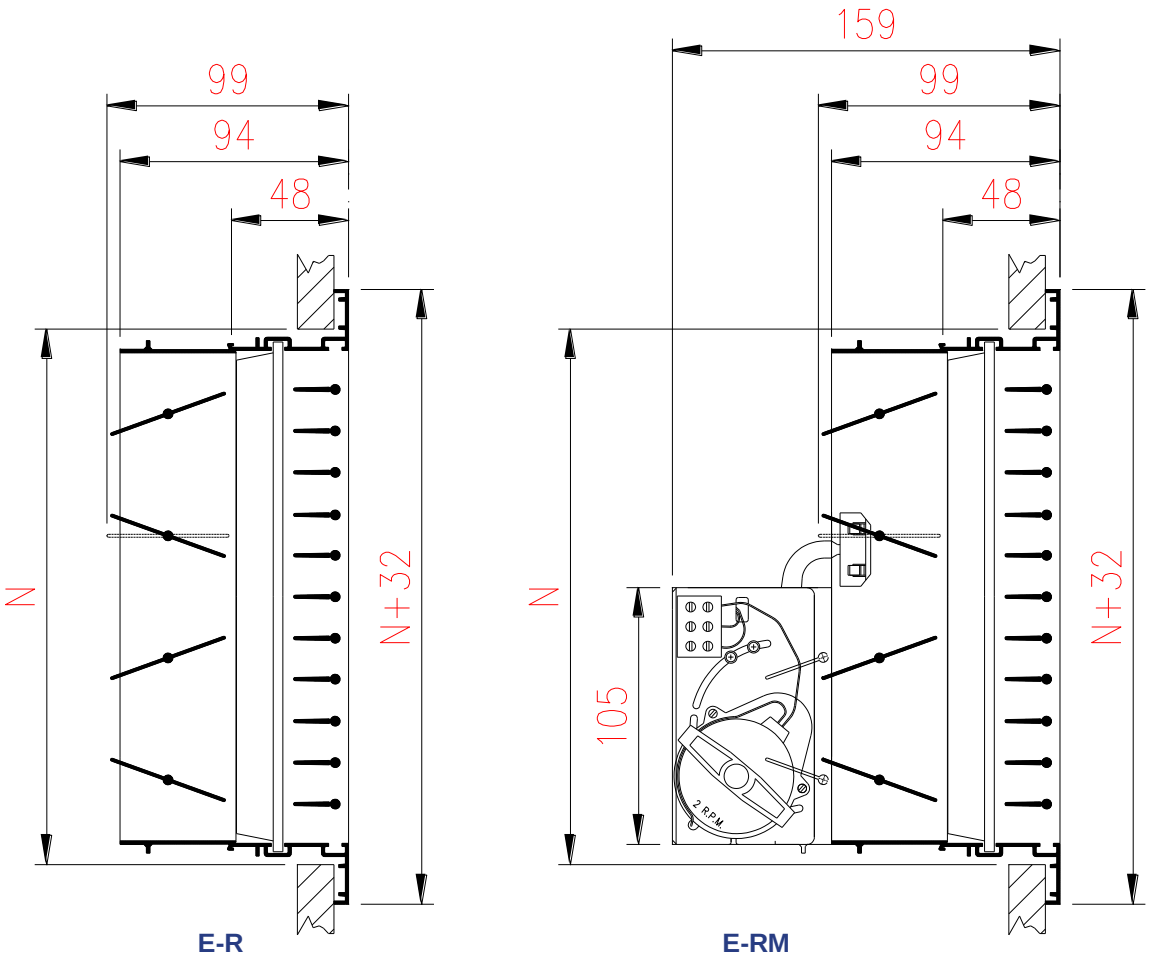
H \ L	100	150	200	250	300	350	400	450	500	600	700	800	900	1000
100	*	*	*	*	*	*	*	*	*	*	*	*	*	*
150		*	*	*	*	*	*	*	*	*	*	*	*	*
200			*	*	*	*	*	*	*	*	*	*	*	*
250				*	*	*	*	*	*	*	*	*	*	*
300					*	*	*	*	*	*	*	*	*	*
350						*	*	*	*	*	*	*	*	*
400							*	*	*	*	*	*	*	*
450								*	*	*	*	*	*	*
500									*	*	*	*	*	*

Note: The dimensions indicated on the table are standard. Other grilles of larger or intermediate sizes can be manufactured on request.

Air diffusion E-HV



Accessories E-HV

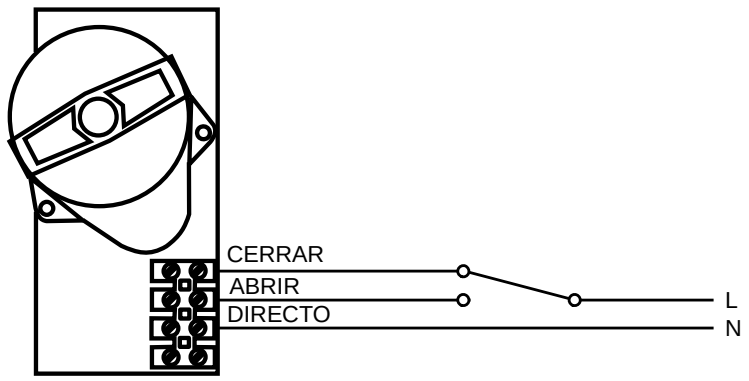


E-R **E-RM**

E-R: Opposed blades flow regulation valve, made with aluminium profiles. In this closing position the blades are totally flat, while when in open position the blades are parallel to the air flow.

The opening and closing of the flow regulation is performed through a manually operated crown wheel.

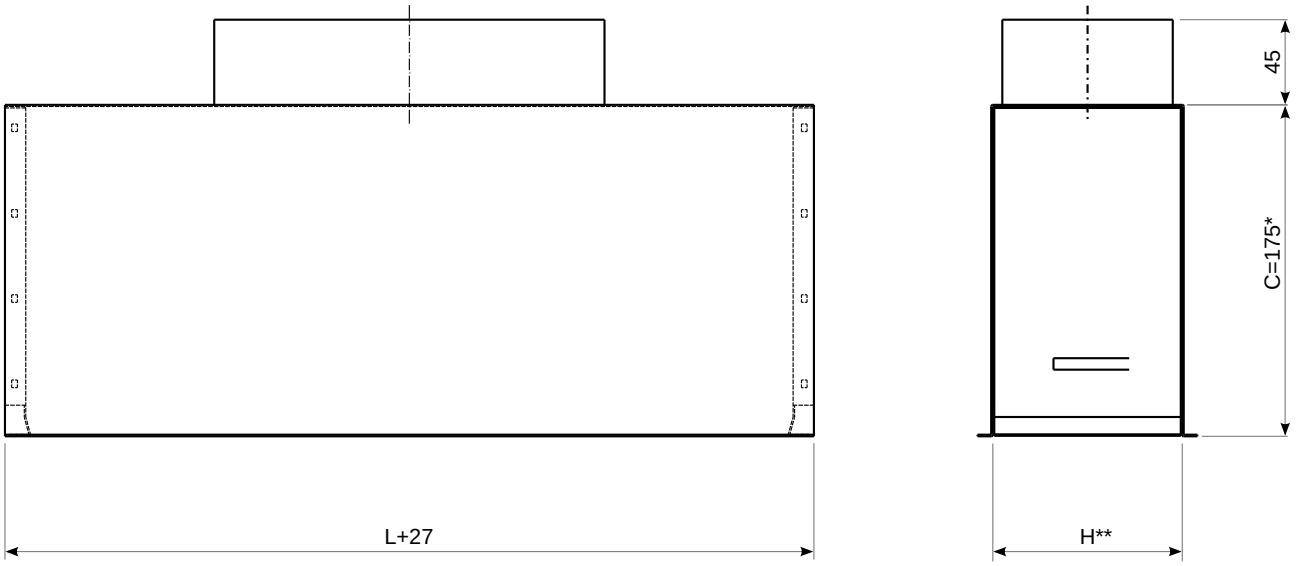
E-RM: Motorization of the regulation valve can be 24 V or 220 V, according to that specified on the order.

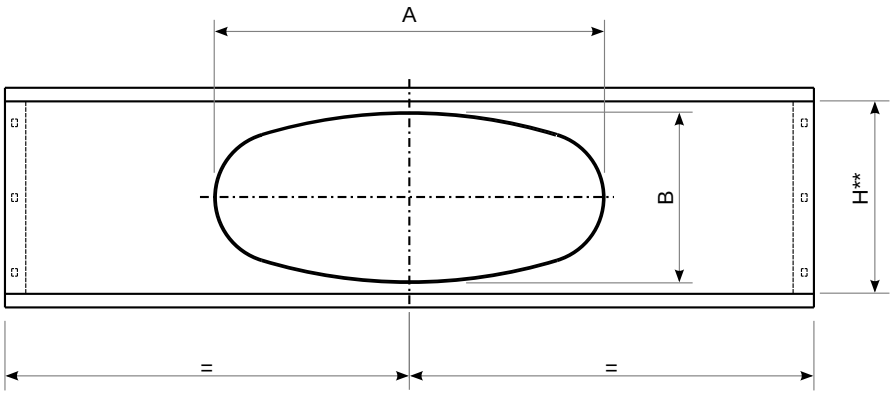


Connection scheme

Plénum E-HV

02.276: Plenum mounted in galvanized sheet with one or more circular (or oval) collars of the same diameter located on the side opposite the one to which the grid is placed.





øD$_{duct}$	A	B
100	107	90
100	100	100
125	150	190
125	125	125
150	190	90
150	162	130
150	150	150
160	206	90
160	178	130
160	160	160
200	270	90
200	242	130
200	200	200
250	281	190
250	250	250
300	300	300

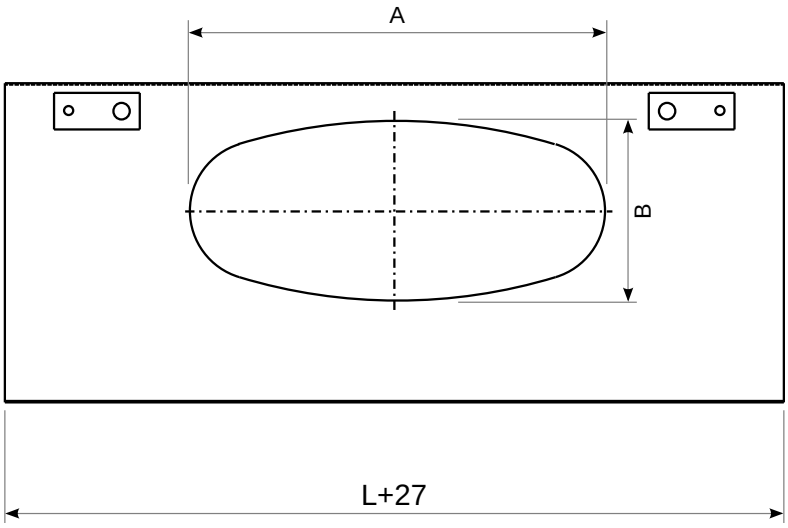
Si H ≤ øD$_{duct}$ → Oval collar
Si H > øD$_{duct}$ → Circular collar

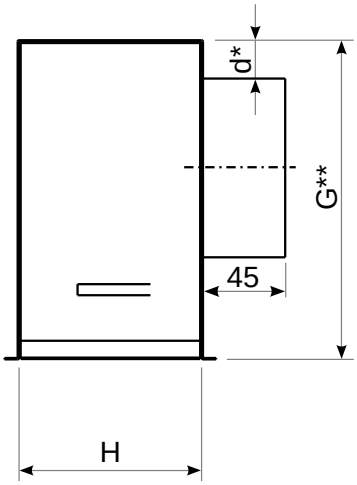
Notes:

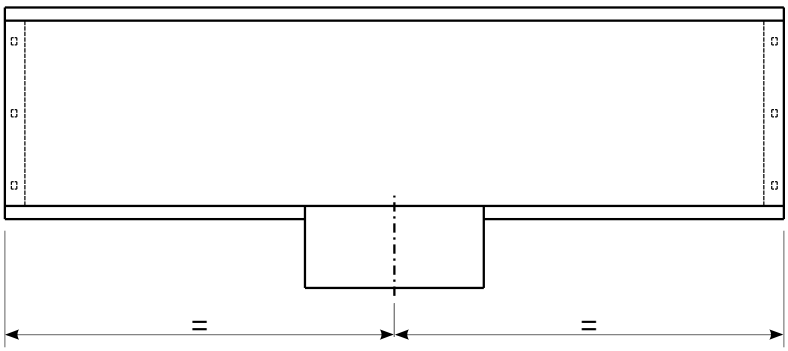
*Possible other dimensions on request
**Minimal H grid dimension B+10mm

Plénum E-HV

02.277: Plenum mounted in galvanized sheet with one or more circular (or oval) collars of the same diameter located on the side of the grid.







$øD_{duct}$	A	B
100	107	90
100	100	100
125	150	190
125	125	125
150	190	90
150	162	130
150	150	150
160	206	90
160	178	130
160	160	160
200	270	90
200	242	130
200	200	200
250	281	190
250	250	250
300	300	300

Notas:

*25mm minimum height
**G according to request

Selection table E-HV

HEIGHT	LENGTH										
400											
350											
300									300		400
250								300		400	500
200			200			300		400		500	600
150		200		300		400		500	600	700	800
100	200	300	400		500	600	700	800	900	1000	1200

m³/h

100	Speed.[m/s]	2,8									
	P [mm.c.W.]	0,5									
	Sound L. [dB(A)]	<15									
	Range [m]	5,1									
150	Speed[m/s]	4,2									
	P [mm.c.W.]	1,2									
	Sound L. [dB(A)]	15									
	Range [m]	7,5									
200	Speed [m/s]	5,6									
	P [mm.c.W.]	2,1									
	Sound L. [dB(A)]	22									
	Range [m]	9,9									
300	Speed[m/s]	8,4	5,4								
	P [mm.c.W.]	4,8	2								
	Sound L. [dB(A)]	32	24								
	Range [m]	14,7	10,7								
400	Speed[m/s]		7,3	5,4	4,7						
	P [mm.c.W.]		3,5	1,9	1,4						
	Sound L. [dB(A)]		31	25	22						
	Range [m]		14,1	11,3	10,2						
500	Speed[m/s]		9,1	6,7	5,8	5,3					
	P [mm.c.W.]		5,6	3	2,2	1,9					
	Sound L. [dB(A)]		37	31	28	26					
	Range [m]		17,5	14	12,6	11,8					
600	Speed[m/s]			8,1	7	6,4	5,3	4,5			
	P [mm.c.W.]			4,4	3,2	2,7	1,9	1,4			
	Sound L. [dB(A)]			35	32	31	27	24			
	Range [m]			16,7	15	14,1	12,3	10,9			
700	Speed[m/s]					7,5	6,2	5,3	4,6		
	P [mm.c.W.]					3,8	2,6	1,9	1,4		
	Sound L. [dB(A)]					35	31	28	25		
	Range [m]					16,4	14,2	12,7	11,5		
800	Speed[m/s]						7,1	6	5,3	4,7	4,2
	P [mm.c.W.]						3,4	2,4	1,9	1,5	1,2
	Sound L. [dB(A)]						34	31	29	26	24
	Range [m]						16,2	14,4	13	11,9	11
900	Speed[m/s]							6,8	5,9	5,3	4,7
	P [mm.c.W.]							3,1	2,4	1,8	1,5
	Sound L. [dB(A)]							34	32	29	27
	Range [m]							16,2	14,6	13,4	12,4
1000	Speed[m/s]								6,6	5,8	5,2	4,4
	P [mm.c.W.]								2,9	2,3	1,8	1,3
	Sound L. [dB(A)]								34	32	30	26
	Range [m]								16,2	14,8	13,7	11,9

Speed = Effective velocity **P** = Pressure loss **Sound L. =** Sound Level **Range** = Air range at speed of 0,25 m/s

Selection table E-HV

HEIGHT	LENGTH												
500									500	600	700	800	900
400					400		500	600	700	800	900	1000	1200
350				400		500	600	700	800	900	1000	1200	
300	300		400	500	500	600	700	800	900	1000	1200		
250		400	500		600	700	800	1000		1200			
200		500	600	700	800	900	1000	1200					
150	600	700	800	900	1000	1200							
100	900	1000	1200										

m³/h

1200	Speed[m/s]	7	6,3	5,2	4,5	4							
	P [mm.c.W.]	3,3	2,7	1,8	1,3	1,1							
	Sound L. [dB(A)]	36	34	31	28	26							
	Range [m]	17,7	16,3	14,3	12,4	11,8							
1400	Speed[m/s]			6,1	5,2	4,7	3,9						
	P [mm.c.W.]			2,5	1,8	1,5	1						
	Sound L. [dB(A)]			35	32	29	26						
	Range [m]			16,4	14,8	13,7	11,9						
1600	Speed[m/s]				6	5,4	4,5	3,8					
	P [mm.c.W.]				2,4	1,9	1,3	1					
	Sound L. [dB(A)]				35	33	29	26					
	Range [m]				16,8	15,6	13,6	12,1					
1800	Speed[m/s]					6,1	5	4,3	3,6				
	P [mm.c.W.]					2,4	1,7	1,2	0,8				
	Sound L. [dB(A)]					36	32	29	25				
	Range [m]					17,4	15,2	13,6	11,8				
2000	Speed[m/s]						5,6	4,8	4	3,5	3,2		
	P [mm.c.W.]						2,1	1,5	1	0,8	0,6		
	Sound L. [dB(A)]						35	32	28	25	24		
	Range [m]						16,8	15	13,1	11,8	11,1		
2500	Speed[m/s]								5	4,3	4	3,2	
	P [mm.c.W.]								1,6	1,2	1	0,7	
	Sound L. [dB(A)]								34	31	29	25	
	Range [m]								16,3	14,6	13,8	11,8	
3000	Speed[m/s]									5,2	4,8	3,9	3,3
	P [mm.c.W.]									1,7	1,5	1	0,7
	Sound L. [dB(A)]									36	34	30	27
	Range [m]									17,5	16,4	14,1	12,6
3500	Speed[m/s]											4,5	3,9	3,3
	P [mm.c.W.]											1,3	1	0,7
	Sound L. [dB(A)]											34	31	28
	Range [m]											16,3	14,6	13,1
4000	Speed[m/s]												4,4	3,8
	P [mm.c.W.]												1,3	0,9
	Sound L. [dB(A)]												34	31
	Range [m]												16,6	14,9

Speed = Effective velocity **P** = Pressure loss **Sound L. =** Sound Lebel **Range** = Air range at speed of 0,25 m/s

Effective surface (m²) E-HV

H \ L	100	150	200	250	300	350	400	450	500	600	700	800	900	1000
100	0,005	0,007	0,010	0,013	0,015	0,018	0,021	0,023	0,026	0,031	0,037	0,042	0,048	0,053
150	0,007	0,011	0,015	0,020	0,024	0,028	0,032	0,036	0,041	0,049	0,057	0,066	0,074	0,082
200	0,010	0,016	0,022	0,028	0,034	0,039	0,045	0,051	0,057	0,069	0,081	0,092	0,104	0,116
250	0,013	0,020	0,027	0,035	0,042	0,049	0,057	0,064	0,072	0,086	0,101	0,116	0,131	0,146
300	0,015	0,025	0,034	0,043	0,052	0,061	0,070	0,079	0,088	0,106	0,124	0,142	0,161	0,179
350	0,018	0,029	0,039	0,050	0,060	0,071	0,082	0,092	0,103	0,124	0,146	0,166	0,187	0,209
400	0,021	0,033	0,045	0,058	0,070	0,082	0,094	0,107	0,119	0,144	0,168	0,192	0,217	0,242
450	0,023	0,037	0,051	0,065	0,079	0,092	0,106	0,120	0,134	0,161	0,189	0,216	0,244	0,272
500	0,026	0,042	0,057	0,073	0,088	0,104	0,119	0,135	0,150	0,181	0,212	0,243	0,274	0,305

EXAMPLE OF SELECTION

Data: Supply air flow rate Q = 600 m³/h

Sound Level allowed = 30 dB(A)

HEIGHT	LENGTH											
350												
300										300		400
250								300		400	500	
200			200			300		400		500	600	
150		200		300		400		500	600	700	800	
100	200	300	400		500	600	700	800	900	1000	1200	

m³/h

600	**Speed[m/s]**			8,1	7	6,4	5,3	4,5				
	P [mm.c.W.]			4,4	3,2	2,7	1,9	1,4				
	Sound L. [dB(A)]			35	32	31	27	24				
	Range [m]			16,7	15	14,1	12,3	10,9				

Results: Dimensions 600mm X 100mm

Speed = 5,3 m/s

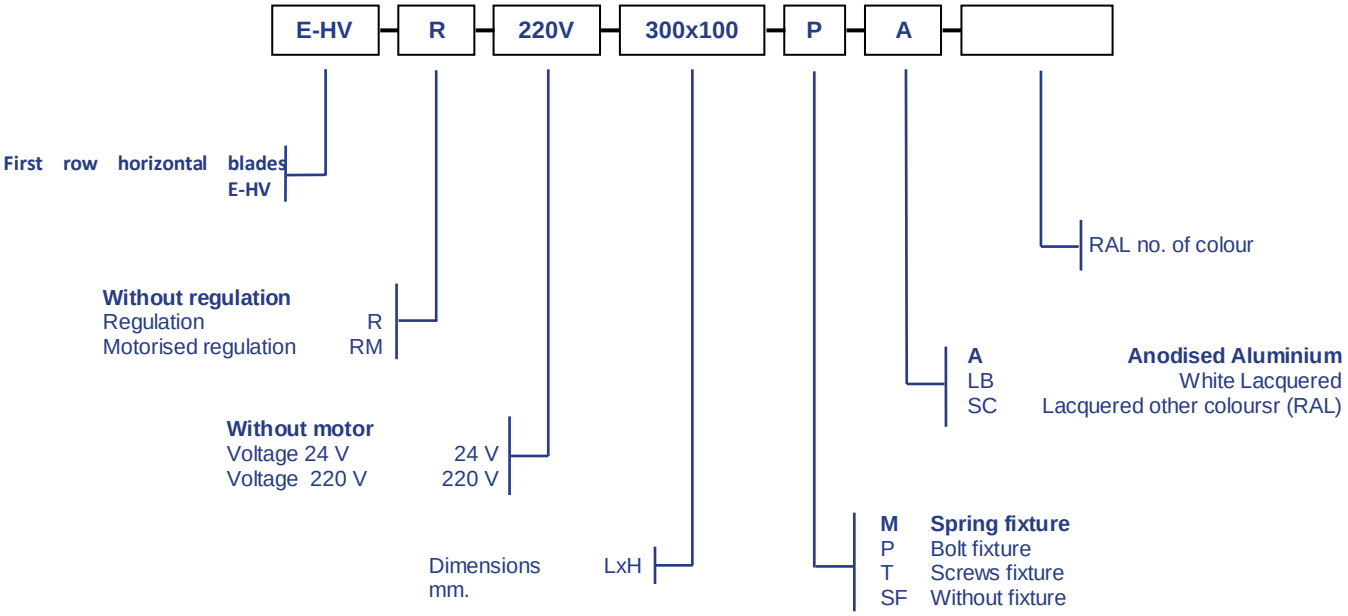
Pressure Loss P = 1,9 mm.c.W.

Sound Level = 27 dB(A)

Range = 12,3 m

Order reference:

E-HV



Note: The options marked in bold will be used in the case no specification is made by the client.

EXAMPLE: E-HV-RM-220V-300x100-P-LB: HV grille with horizontal blades on the first row, with motorized regulation of 220 V, 300 mm long and 100 mm high with bolt fixtures and lacquered in white.