E-RAE

Return grille with fixed 45º curved 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-RAE

E-RAE: Return grille with fixed 45º curved blades, made in aluminium, with 12.5 mm frame.

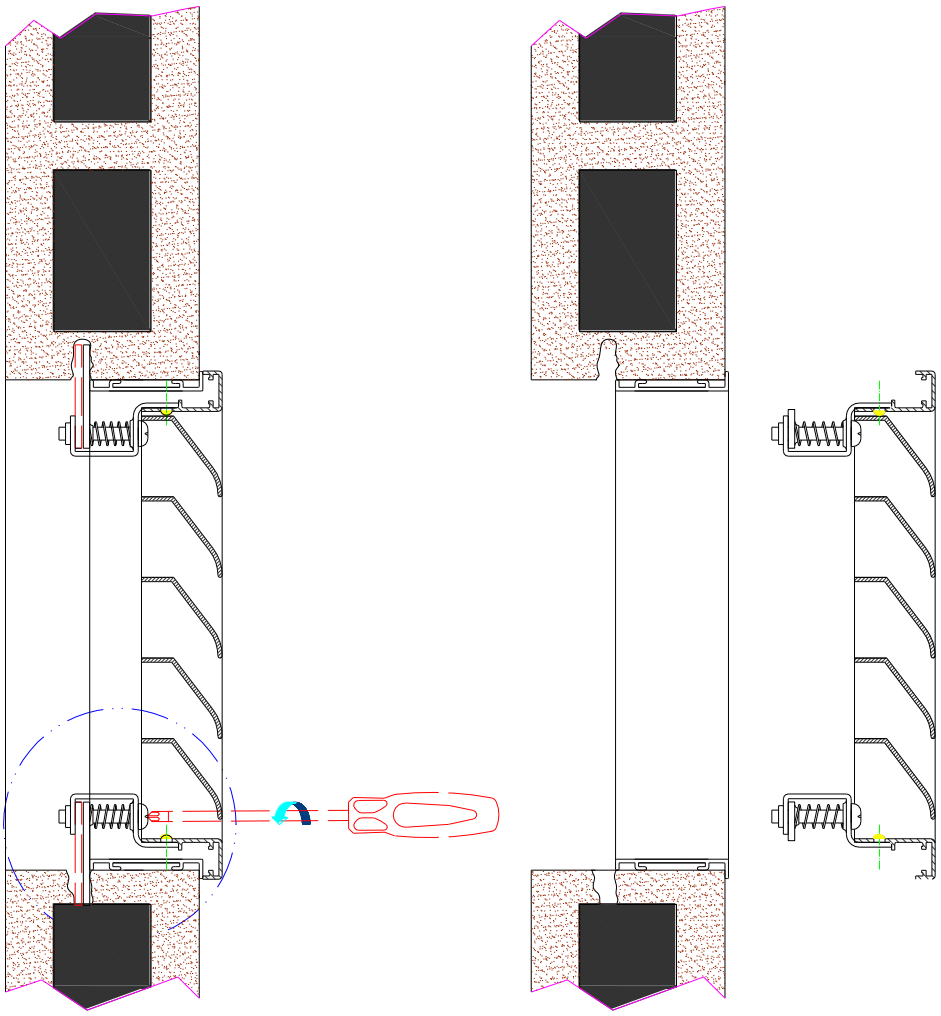
Fixtures:

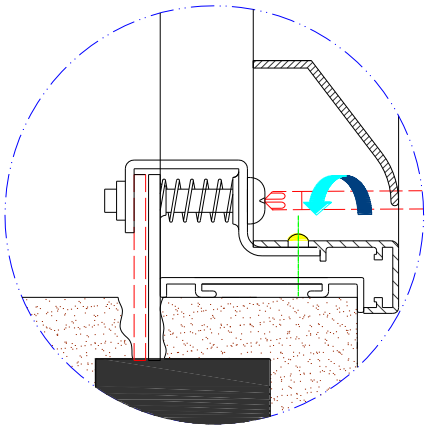
- ✓ Bolts with frame E-MAE or E-TACO

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

Applications: The E-RAE narrow frame grille is very aesthetic although it can not be mounted with the normal metallic frame as its tabs would stand out from the grille's outer frame.

Fixtures E-RAE



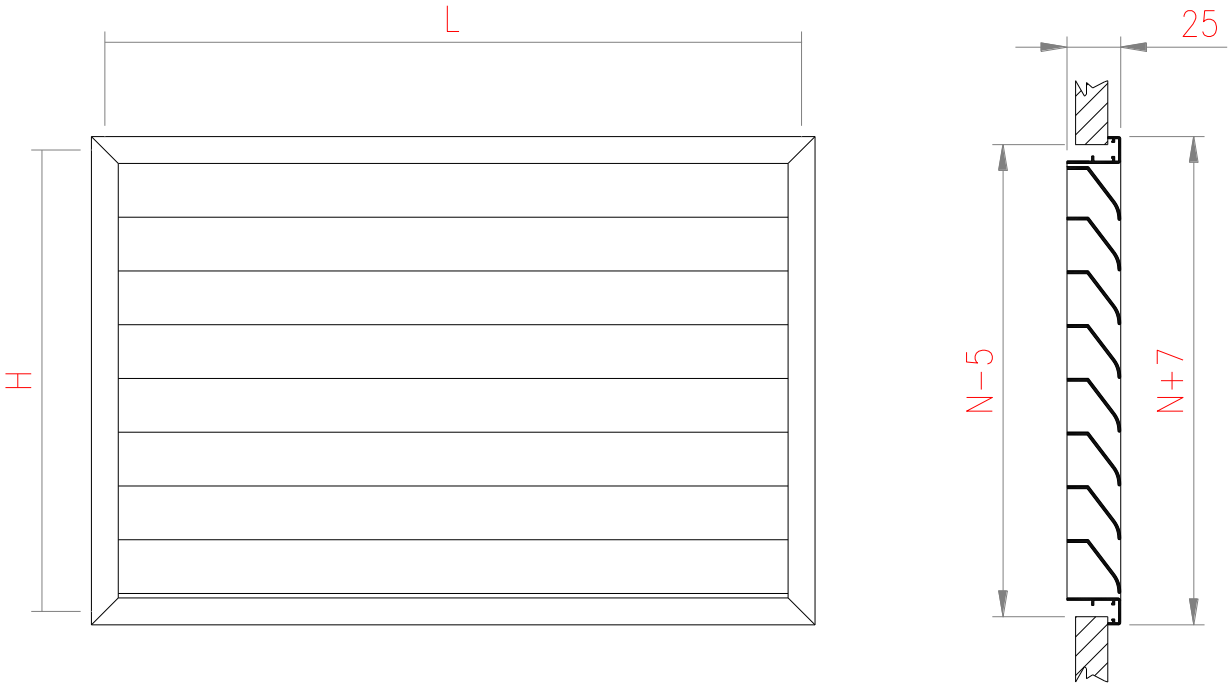


Bolts:

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 girell)
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.

Dimensione E-RAE

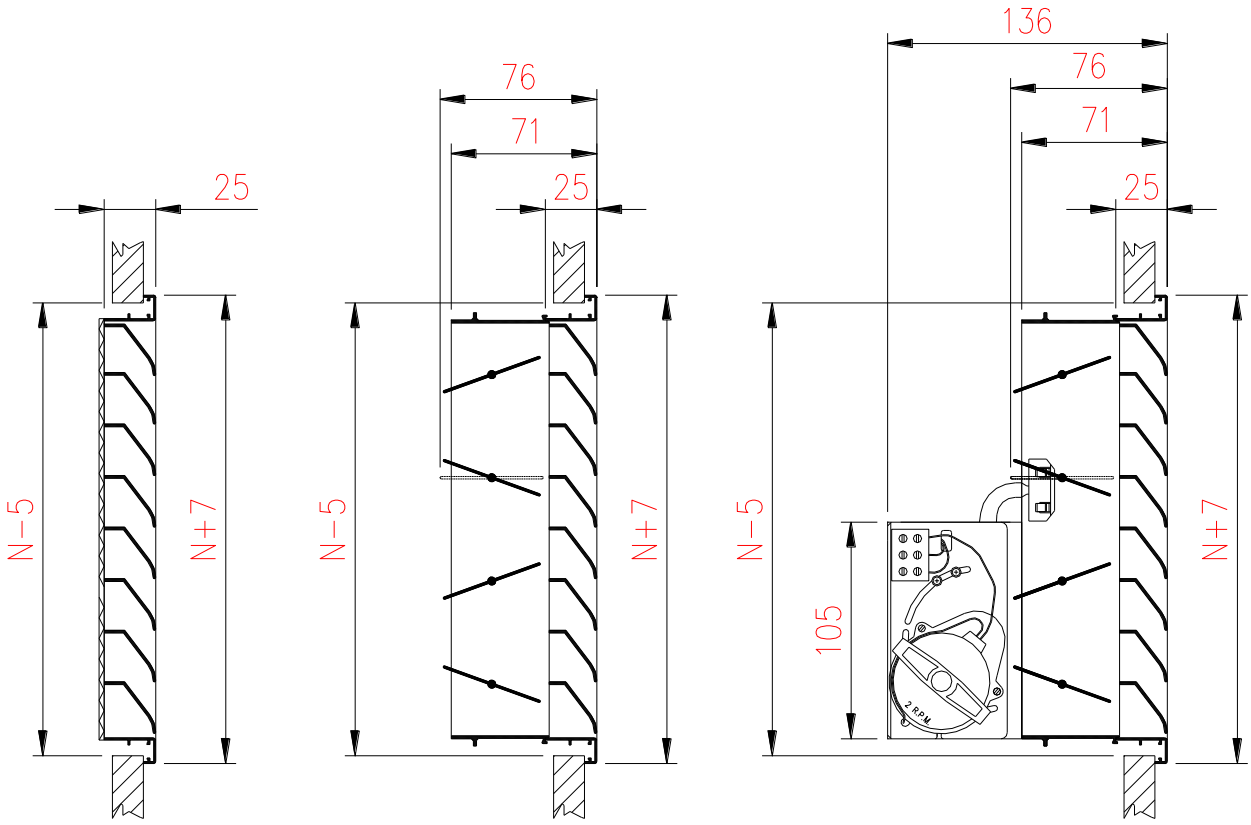
SIZE OF THE HOLE	
With frame	(L - 5) x (H - 5)
Without frame	(L + 2) x (H + 2)



H \ L	100	200	300	400	500	600	700	800	900	1000	1200	1300	1400	1500
100	*	*	*	*	*	*	*	*	*	*	*	*	*	*
150	*	*	*	*	*	*	*	*	*	*	*	*	*	*
200	*	*	*	*	*	*	*	*	*	*	*	*	*	*
250	*	*	*	*	*	*	*	*	*	*	*	*	*	*
300	*	*	*	*	*	*	*	*	*	*	*	*	*	*
350	*	*	*	*	*	*	*	*	*	*	*	*	*	*
400	*	*	*	*	*	*	*	*	*	*	*	*	*	*
450	*	*	*	*	*	*	*	*	*	*	*	*	*	*
500	*	*	*	*	*	*	*	*	*	*	*	*	*	*
600	*	*	*	*	*	*	*	*	*	*	*	*	*	*
700	*	*	*	*	*	*	*	*	*	*	*	*	*	*
800	*	*	*	*	*	*	*	*	*	*	*	*	*	*
900	*	*	*	*	*	*	*	*	*	*	*	*	*	*
1000	*	*	*	*	*	*	*	*	*	*	*	*	*	*

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

Accessories E-RAE



E-M **E-R** **E-RM**

E-M: Anti-bird mesh. Used when E-RAE is used as exterior air intake.

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. It can be 24 V or 220 V, according to that specified on the order.

Selection tables E-RAE

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

m³/h

100	Speed[m/s]	1,9											
	P [mm.c.a.]	2											
	Sound L. [dB(A)]	17											
150	Speed[m/s]	2,8											
	P [mm.c.a.]	4,4											
	Sound L. [dB(A)]	27											
200	Speed[m/s]	3,7	2,4	1,8									
	P [mm.c.a.]	7,7	3,3	1,9									
	Sound L. [dB(A)]	34	25	19									
300	Speed[m/s]		3,6	2,7	2,4	2,1	1,8						
	P [mm.c.a.]		7,2	4	3,2	2,6	1,8						
	Sound L. [dB(A)]		35	29	27	25	21						
400	Speed[m/s]				3,1	2,8	2,3	2	1,7				
	P [mm.c.a.]				5,5	4,5	3,1	2,3	1,8				
	Sound L. [dB(A)]				34	32	28	25	22				
500	Speed[m/s]						2,9	2,5	2,2	1,9	1,7		
	P [mm.c.a.]						4,8	3,5	2,8	2,2	1,8		
	Sound L. [dB(A)]						34	30	28	26	23		
600	Speed[m/s]									2,6	2,3	2,1	1,7
	P [mm.c.a.]									3,8	3	2,5	1,8
	Sound L. [dB(A)]									32	30	28	24
700	Speed[m/s]									2,7	2,4	2	1,7
	P [mm.c.a.]									4,1	3,3	2,4	1,7
	Sound L. [dB(A)]									34	31	28	24
800	Speed[m/s]										2,8	2,3	1,9
	P [mm.c.a.]										4,3	3	2,1
	Sound L. [dB(A)]										35	31	27

Speed = Effective velocity **P** = Pressure loss **Sound L. =** Sound Level

Tablas de selección E-RAE

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

m³/h

900	Speed[m/s]	2,6	2,2	1,9	1,6								
	P [mm.c.a.]	3,8	2,7	2,2	1,6								
	Sound L.	34	30	28	24								
1000	Speed[m/s]		2,4	2,1	1,8	1,6							
	P [mm.c.a.]		3,3	2,7	1,9	1,5							
	Sound L.		33	31	27	24							
1200	Speed[m/s]				2,6	1,9	1,6						
	P [mm.c.a.]				3,8	2	1,5						
	Sound L.				35	29	25						
1400	Speed[m/s]				2,5	2,2	1,8	1,6					
	P [mm.c.a.]				3,5	2,7	1,9	1,5					
	Sound L.				35	33	29	26					
1600	Speed[m/s]						2,1	1,8	1,6	1,3			
	P [mm.c.a.]						2,5	1,9	1,7	1,1			
	Sound L.						32	29	27	23			
1800	Speed[m/s]							2	1,8	1,5	1,3		
	P [mm.c.a.]							2,4	2	1,4	1		
	Sound L.							32	30	26	23		
2000	Speed[m/s]								2	1,7	1,4	1,2	
	P [mm.c.a.]								2,4	1,7	1,3	1	
	Sound L.								33	29	26	23	
2500	Speed[m/s]									2,1	1,8	1,5	1,5	1,2
	P [mm.c.a.]									2,5	1,9	1,5	1,3	1
	Sound L.									35	31	28	27	24
3000	Speed[m/s]											1,9	1,8	1,5
	P [mm.c.a.]											2	1,8	1,3
	Sound L.											33	32	28
3500	Speed[m/s]													1,7
	P [mm.c.a.]													1,7
	Sound L.													32

Speed = Effective velocity **P** = Pressure loss **Sound L. =** Sound Level

Effective surface (m²) E-RAE

H \ L	100	200	300	400	500	600	700	800	900	1000	1200	1300	1400	1500
100	0,002	0,004	0,006	0,009	0,011	0,013	0,015	0,017	0,020	0,022	0,026	0,029	0,031	0,033
150	0,004	0,008	0,013	0,017	0,022	0,026	0,030	0,035	0,039	0,044	0,053	0,057	0,062	0,066
200	0,005	0,012	0,019	0,026	0,032	0,039	0,046	0,052	0,059	0,066	0,079	0,086	0,093	0,099
250	0,007	0,016	0,025	0,034	0,043	0,052	0,061	0,070	0,079	0,088	0,106	0,115	0,123	0,132
300	0,009	0,020	0,031	0,043	0,054	0,065	0,076	0,087	0,099	0,110	0,132	0,143	0,154	0,166
350	0,011	0,024	0,038	0,051	0,065	0,078	0,091	0,105	0,118	0,132	0,158	0,172	0,185	0,199
400	0,013	0,028	0,044	0,060	0,075	0,091	0,107	0,122	0,138	0,154	0,185	0,200	0,216	0,232
450	0,015	0,033	0,050	0,068	0,086	0,104	0,122	0,140	0,158	0,176	0,211	0,229	0,247	0,265
500	0,016	0,037	0,057	0,077	0,097	0,117	0,137	0,157	0,177	0,197	0,238	0,258	0,278	0,298
600	0,020	0,045	0,069	0,094	0,118	0,143	0,168	0,192	0,217	0,241	0,290	0,315	0,340	0,364
700	0,024	0,053	0,082	0,111	0,140	0,169	0,198	0,227	0,256	0,285	0,343	0,372	0,401	0,430
800	0,027	0,061	0,094	0,128	0,162	0,195	0,229	0,262	0,296	0,329	0,396	0,430	0,463	0,497
900	0,031	0,069	0,107	0,145	0,183	0,221	0,259	0,297	0,335	0,373	0,449	0,487	0,525	0,563
1000	0,035	0,077	0,120	0,162	0,205	0,247	0,289	0,332	0,374	0,417	0,502	0,544	0,587	0,629

EXAMPLE OF GRILLE SELECTION

Data: Air flow rate Q = 500 m³/h

Sound Level = 30 dB(A)

HEIGHT	LENGTH													
500														
400														400
350													400	
300									300		400	500	500	500
250								300		400	500			600
200			200			300		400		500	600	700	800	
150		200		300		400		500	600	700	800	900	1000	
100	200	300	400		500	600	700	800	900	1000	1200			
m³/h														

500	Speed[m/s]						2,9	2,5	2,2	1,9	1,7			
	P [mm.c.a.]						4,8	3,5	2,8	2,2	1,8			
	Sound L. [dB(A)]						34	30	28	26	23			

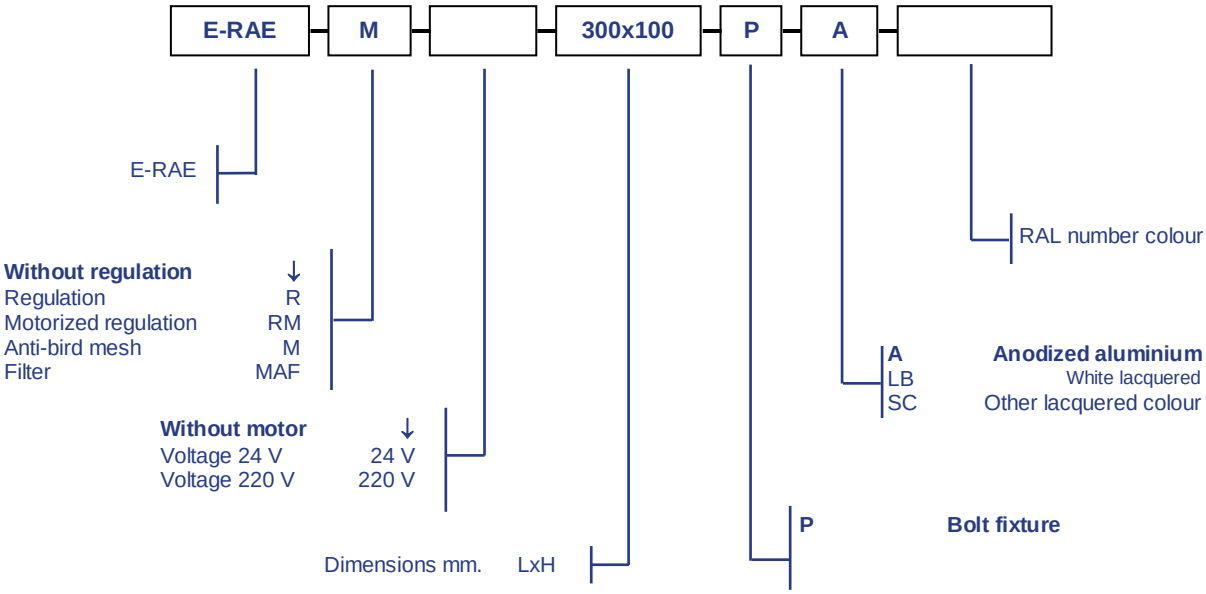
Results: Dimensions 700mm X 100mm

Speed = 2,5 m/s

Pressure loss P = 3,5 mm.c.a.

Sound Level = 30 dB(A)

Order reference:



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

EXAMPLE: E-RAE-M-300x100-M-LB: RAE grille with anti-bird mesh of 300 mm long and 100 mm high with bolts fixtures and lacquered in white.