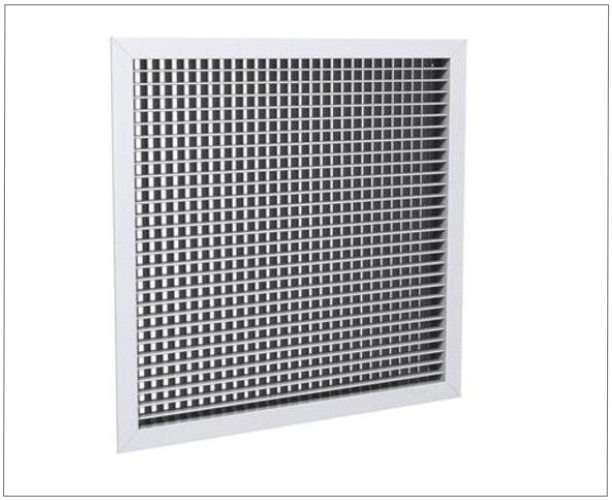
Double deflection grille

DD



Detalii constructive. Utilizare.

Grille with two rows of blades, horizontal and vertical, individually adjustable.

Used mainly for supply, in ventilation systems.

Material

Aluminium.

Finish

Standard finish: white RAL9003.

Optional finishing:
- different RAL (extra cost)
- natural aluminium

Mounting / Fixing

Mounting on the wall or ceiling (inside).
Fixing with visible screws (countersunk hole in frame).

Different fixing systems are available under certain commercial conditions.
(see **Fixing systems for grilles / diffusers**)

Optional accessories

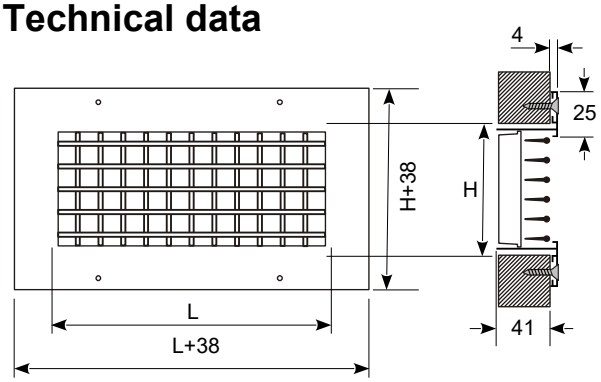
Opposed blade damper – **OBD** (extra cost).
Plenum box – **PL** (extra cost).
Fixing systems (extra cost).

Order code: **DD** **aaa x bbb** **+***

Product code
opening length L (mm)
opening height H (mm)
not specified - white RAL9003 (standard)
RALxxxx - optional RAL code
ALU - natural aluminium

* optional accessories

Technical data



LxH - opening hole size

Grille neck size: (L-10) x (H-10)

Standard sizes

L	H	Q (m^3/h) @ Vef 2,5 (m/s)
200	100	100
300	100	160
400	100	220
500	100	270
600	100	320
400	200	430
500	200	540
600	200	650
800	200	860
1000	200	1100
300	300	490
500	300	810
600	300	970
800	300	1300
1000	300	1620
600	400	1360
1000	400	2160
595*	595*	1620

***** external dimension 595x595, for cassette ceiling system (without mounting holes in frame)

Custom sizes

Custom sizes available (under certain commercial conditions), between: LxH 100x100 mm ~ LxH 2000x1000 mm

Double deflection grille

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Quick selection

Q (m^3/h)	LxH (mm)	200x100	250x100	300x100 200x150	400x100 250x150	300x150	500x100	600x100 400x150	500x150	400x200	600x150 300x300	500x200	800x150 600x200	1000x150 500x300	800x200	600x300	1000x200	800x300 600x400	1000x300 595x595*	1000x400
	$A_{ef}(m^2)$	0,016	0,020	0,024	0,032	0,036	0,040	0,048	0,060	0,064	0,072	0,080	0,096	0,120	0,128	0,144	0,160	0,192	0,240	0,320
150	Lt(m)	2,8	2,6	2,4																
	Lw(dB(A))	27	20	18																
	ΔPt(Pa)	7	5	3																
200	Lt(m)	3,9	3,5	3,2																
	Lw(dB(A))	37	30	22																
	ΔPt(Pa)	12	8	6																
250	Lt(m)	5	4,4	3,9	3,5	3,3	3,1													
	Lw(dB(A))	43	37	32	22	20	17													
	ΔPt(Pa)	18	12	9	5	4	3													
300	Lt(m)			4,8	4,2	3,8	3,6													
	Lw(dB(A))			37	27	24	21													
	ΔPt(Pa)			12	7	6	5													
350	Lt(m)				4,9	4,6	4,4													
	Lw(dB(A))				32	27	25													
	ΔPt(Pa)				9	7	6													
400	Lt(m)				5,6	5,3	5	4,5												
	Lw(dB(A))				38	36	31	24												
	ΔPt(Pa)				14	12	8	6												
450	Lt(m)				6,3	5,8	5,6	5,1												
	Lw(dB(A))				43	37	33	27												
	ΔPt(Pa)				18	13	10	7												
500	Lt(m)							5,7	5,1	4,8										
	Lw(dB(A))							32	23	22										
	ΔPt(Pa)							9	5	5										
600	Lt(m)							6,8	6	5,8	5,6	5,3								
	Lw(dB(A))							37	27	26	22	20								
	ΔPt(Pa)							12	7	6	5	4								
700	Lt(m)							7,9	7,3	7	6,5	6,2								
	Lw(dB(A))							42	33	32	27	24								
	ΔPt(Pa)							17	10	9	7	6								
800	Lt(m)								8,2	7,7	7,4	7,2	6,5	5,7	5,6					
	Lw(dB(A))								37	35	32	27	23	18	15					
	ΔPt(Pa)								13	12	9	7	6	4	3					
900	Lt(m)									8,8	8,3	7,9	7,3	6,5	6,3					
	Lw(dB(A))									38	34	32	27	21	18					
	ΔPt(Pa)									14	11	9	7	5	4					
1000	Lt(m)											9	8	7,3	7,1	6,7	6,4			
	Lw(dB(A))											37	32	25	22	21	18			
	ΔPt(Pa)											13	9	6	5	5	4			
1200	Lt(m)												9,6	8,4	8,2	7,8	7,5	6,7		
	Lw(dB(A))												37	30	27	23	21	18		
	ΔPt(Pa)												13	8	7	6	5	4		
1400	Lt(m)												11,7	10,2	9,7	9,1	8,7	7,8	7,1	
	Lw(dB(A))												42	33	31	27	25	22	15	
	ΔPt(Pa)												16	10	8	7	6	5	3	
1600	Lt(m)												13,8	12,3	12	11,3	10,6	9,3	8,3	
	Lw(dB(A))												45	38	36	32	31	27	18	
	ΔPt(Pa)												20	14	12	9	8	7	4	
1800	Lt(m)													13,8	13,4	12,7	12,1	10,7	9,4	7,9
	Lw(dB(A))													45	42	37	35	32	23	17
	ΔPt(Pa)													18	17	13	12	9	6	3
2000	Lt(m)																	12,3	10,6	8,8
	Lw(dB(A))																	37	25	18
	ΔPt(Pa)																	13	7	4
2500	Lt(m)																		13,5	11,6
	Lw(dB(A))																		32	22
	ΔPt(Pa)																		9	5
3000	Lt(m)																		15,8	14
	Lw(dB(A))																		42	27
	ΔPt(Pa)																		17	7
3500	Lt(m)																			15,8
	Lw(dB(A))																			32
	ΔPt(Pa)																			9

*external dimension 595x595, for cassette ceiling system

Data is valid for:
- H ceiling =2,5±0,5m
- L_t (m) @ V_t=0,2 m/s (without Coanda effect)
- L_w(db(A)) incl. room attenuation 5dB(A)
- Temperature difference Dt=-10K
- deflection 0°, without damper

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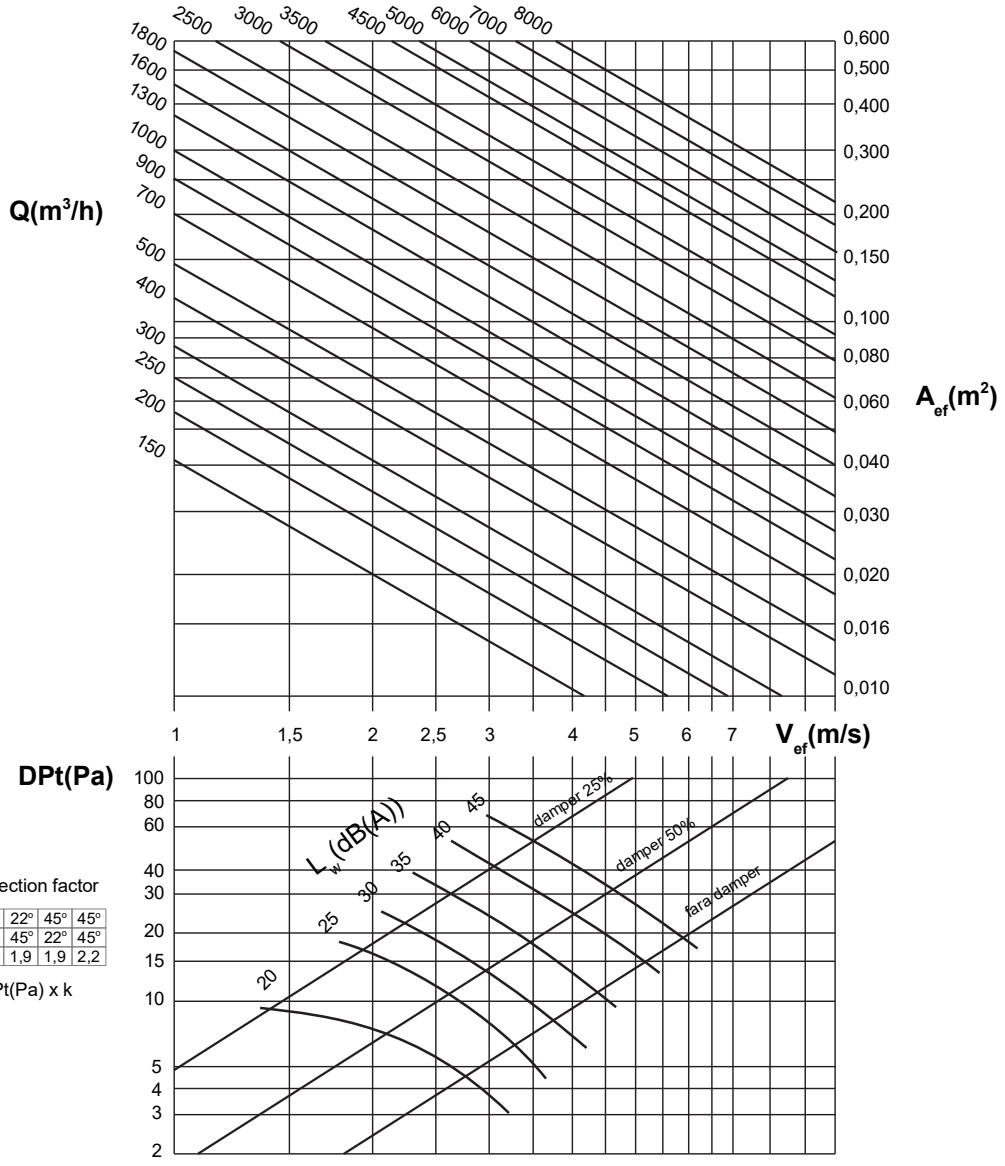
Technical data

A_{ef} (m^2)

H (mm)	100	150	200	250	300	350	400	450	500	550	600	700	800	900	1000
600	-	-	-	-	-	-	-	-	-	-	0,216	0,252	0,288	0,324	0,360
550	-	-	-	-	-	-	-	-	-	0,182	0,198	0,231	0,264	0,297	0,330
500	-	-	-	-	-	-	-	-	0,150	0,165	0,180	0,210	0,240	0,270	0,300
450	-	-	-	-	-	-	-	0,122	0,135	0,149	0,162	0,189	0,216	0,243	0,270
400	-	-	-	-	-	-	0,096	0,108	0,120	0,132	0,144	0,168	0,192	0,216	0,240
350	-	-	-	-	-	0,074	0,084	0,095	0,105	0,116	0,126	0,147	0,168	0,189	0,210
300	-	-	-	-	0,054	0,063	0,072	0,081	0,090	0,099	0,108	0,126	0,144	0,162	0,180
250	-	-	-	0,038	0,045	0,053	0,060	0,068	0,075	0,083	0,090	0,105	0,120	0,135	0,150
200	-	-	0,024	0,030	0,036	0,042	0,048	0,054	0,060	0,066	0,072	0,084	0,096	0,108	0,120
150	-	0,014	0,018	0,023	0,027	0,032	0,036	0,041	0,045	0,050	0,054	0,063	0,072	0,081	0,090
100	0,006	0,009	0,012	0,015	0,018	0,021	0,024	0,027	0,030	0,033	0,036	0,042	0,048	0,054	0,060

L (mm)



Deflection correction factor

deflection row 1	22°	22°	45°	45°
deflection row 2	22°	45°	22°	45°
k	1,6	1,9	1,9	2,2

$DPt_{tot}(Pa)=DPt(Pa) \times k$

Double deflection grille

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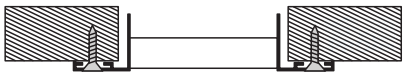
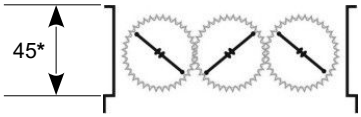
Fixing



Fixing with visible screws (**standard**).
Screws are supplied at the same color as grille.

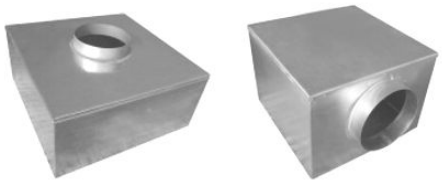
Different fixing systems are available (under certain commercial conditions).
(details in **Fixing systems for grilles / diffusers** chapter)

Optional accessories



OBD - Opposed blade damper. (extra cost)

***to be added to grille depth dimension**



PL – Plenum box(extra cost)

Variants:
- uninsulated / thermal insulated
- axial or lateral spigot