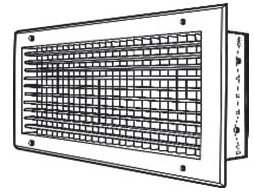


ADJUSTABLE DEFLECTION GRILLE - ADG

DESCRIPTION & FEATURES

Adjustable Grilles Single Deflection and Double Deflection are suitable for supply and extract air for either sidewall or exposed duct applications. The single or double row of blades permit up to 45° deflection of the air, in either one or two planes.



ADG

ADG Grilles are manufactured from extruded aluminium sections, the mitred corners being fully welded and finished.

Also available as an Heavy Duty model. These are particularly suited to areas with a high degree of vulnerability or damage; typically car parks, school halls or industrial projects.

Standard finish is RAL9010 or polyester powder coated to the customers colour requirement.

PLENUM BOXES

Plenum boxes are accessories for use with Grilles and Diffusers. They are designed to equalise the pressure profile within the box and hence provide an even velocity at the face of the Grille or Diffuser without the use of Equalising Grids.

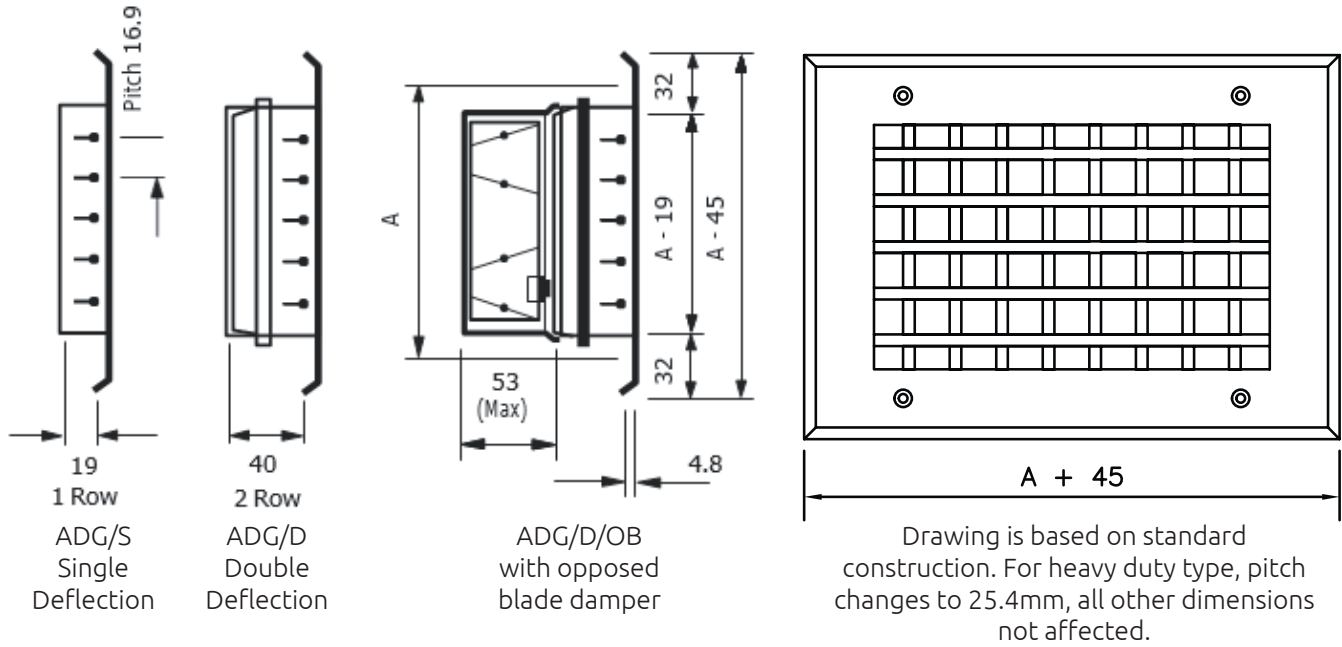
ADG ORDERING CODE (GRILLE)	
Series	ADG
Deflect	S - Single Deflection (Horizontal Blades) D - Double Deflection (Horiz. & Vert. Blades)
Blades	S - Standard Blades H - Heavy Duty Blades
Damper	OB - Opposed Blade Damper 0 - No Damper
Frame	S - 32mm Frame (std) N - 19mm Frame
Fixing	F0 - No fixings F1 - CSK Flange Fixing Holes F2 - Spring Clip F4 - Rear Strap F5 - Rear Strap & Bracket
Finish	1 - (Mill Finish) 2 - RAL9006 (Silver/Grey) 3 - RAL9010 (White) 4 - RAL9005 (Black) 5 - RAL9003 (White) 6 - RAL9016 (White) 7 - Other RAL/BS Code (additional costs may apply) 8 - Chrome Finish - Powder Coated
Note	Adjustable Deflection Grilles can also be manufactured from various grades of Stainless Steel, please contact Sales Office.
Example: ADG/D/S/OB/S/F1/3/Nominal Opening Size	

ADG ORDERING CODE (PLENUM)	
Type	PBU - Un-Lined Side Entry PBL - Lined Side Entry PBA - Adaptor Top Entry
Series	ADG
Mesh	P - Perforated Equalising Mesh 0 - No Equalising Mesh
Damper	LS - Lever Spigot Damper CS - Cord Spigot Damper 0 - No Damper
Spigot	OP - 2 Opposite Spigots AD - 2 Adjacent Spigots FL - Flat Oval Spigot
Finish	IN - Black Internal EX - Black External IE - Black Internal & External
Example: PBL/ADG/0/0/Nominal Size/Spigot Size	

ADJUSTABLE DEFLECTION GRILLE - ADG

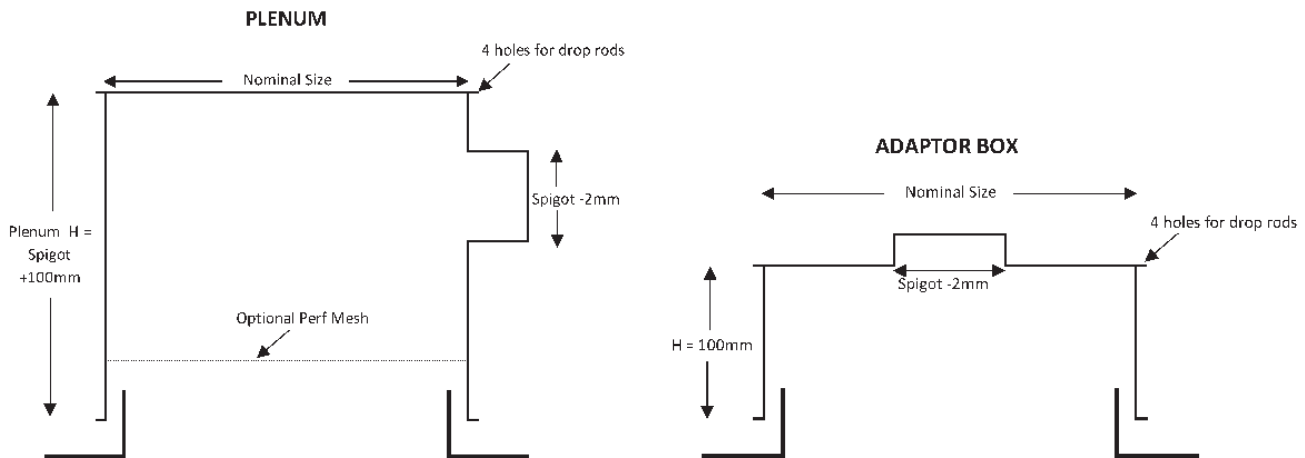
ADG DIMENSIONS (GRILLE)

ADG



Grilles are available to fit duct sizes from 100mm x 100mm up to 1200mm x 600mm as a single unit (visible mullions on certain sizes). Multiple assemblies over 1200 x 600 can be produced. The front blades are always parallel to the first dimension. Thus a grille ordered as 600mm x 300mm will not be the same as a grille 300mm x 600mm.

PLENUM BOX DIMENSIONS



Side entry as drawn. Top entry 250 high.

ADJUSTABLE DEFLECTION GRILLE - ADG

ADG PERFORMANCE DATA

Throw

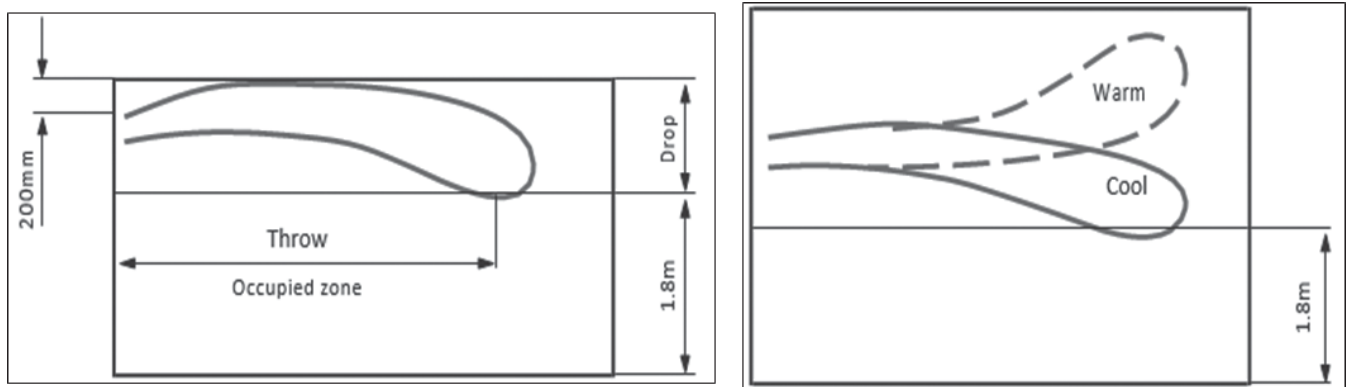
The selection data is based on grilles located within 200mm of the ceiling.

The proximity of the ceiling surface reduces the induction of room air above the grille, so that the air stream clings to the ceiling and increases the throw.

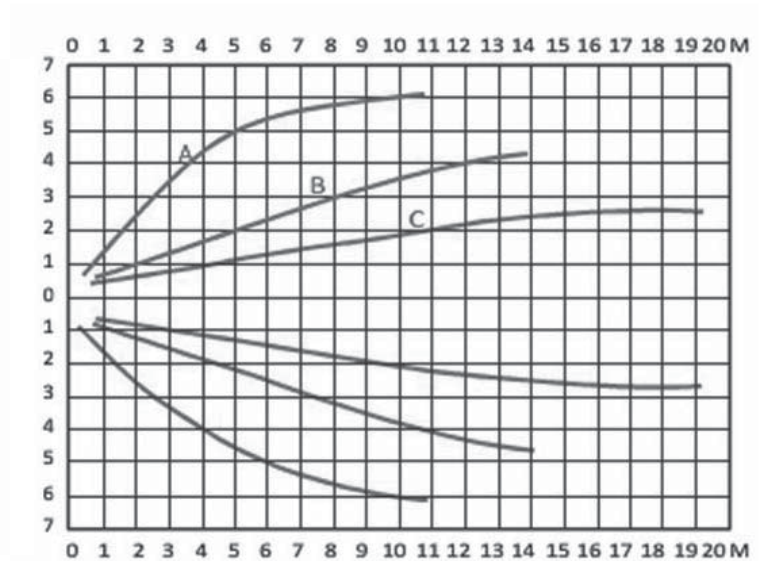
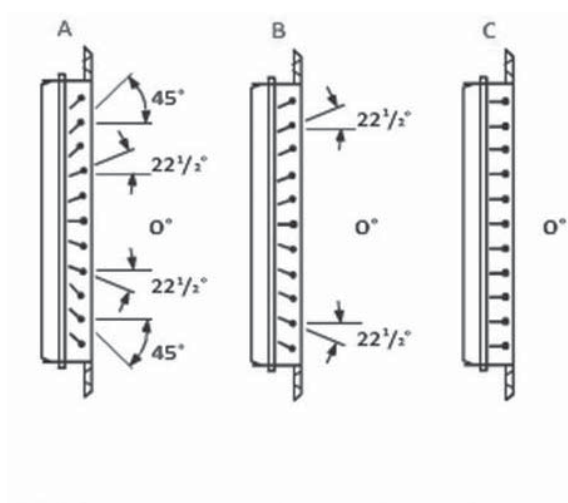
The throw from grille located clear of the ceiling is reduced to approximately 0.7 of the table value. In this location temperature differences between the supply air and the room air affect the air flow to a greater extent.

Throw data (metres) is based on a Terminal Velocity of 0.5m/s to give an average room air movement of 0.25m/s when fitted within a 2.7m high ceiling.

The drop assessment for cooled air is applicable in reverse, giving the rise for warm air. Increasing the aspect ratio of the grille will have little influence on the throw, but will reduce the drop due to temperature differences.



Spread



- A: Blades set at maximum divergence (max 45°)
- B: Blades set at a medium divergence (22.5°)
- C: Blades set parallel to air flow (0°)

Grille selected for spread at 45° deflection, to be effective to be spaced at a pitch equal to the throw.

Supply Grilles - ADG

AIR VOL (U/s)	HEIGHT	WIDTH																								
		100		200		300		400		500		600		700		800		900		1000		1100		1200		
		T	Pa	NR	T	Pa	NR	T	Pa	NR	T	Pa	NR	T	Pa	NR	T	Pa	NR	T	Pa	NR	T	Pa	NR	
25	100	2.6	6	/	1.3	5	/	1.0	5	/																
50	100	4.8	24	28	2.3	6	/	1.9	5	/																
	200				1.6	5	/																			
75	100	6.8	53	39	3.3	14	24	2.7	6	/	2.3	5	/													
	200				2.3	5	/	1.8	5	/																
100	300							1.5	2	/																
	100				4.2	24	31	3.4	11	22	3.0	6	/	2.9	5	/										
125	200				2.9	6	/	2.3	5	/	2.0	5	/													
	300							1.9	5	/																
150	100				5.1	37	42	17	28	3.6	10	22	3.5	6	/	3.4	5	/	3.2	5	/					
	200				3.5	10	22	2.8	5	/	2.5	5	/	2.4	5	/										
175	300							2.3	5	/	2.0	5	/													
	100				6.0	53	42	4.9	24	33	4.2	14	27	4.1	9	22	3.9	6	/	3.7	5	/				
200	200				4.1	14	27	3.3	6	20	2.9	5	/	2.8	5	/	2.7	5	/							
	300							2.7	5	/	2.3	5	/	2.2	5	/										
250	400										2.0	5	/													
	100							5.6	33	37	4.8	19	31	4.7	12	26	4.5	9	22	4.3	6	/	4.1	5	/	
300	200				4.7	19	31	3.8	9	22	3.3	5	/	3.2	5	/	3.1	5	/							
	300							3.1	5	/	2.7	5	/	2.6	5	/										
400	100										2.3	5	/													
	200							6.2	42	40	5.4	24	34	5.3	16	29	5.0	11	25	4.8	8	22	4.6	6	/	
500	200				5.2	24	34	4.3	11	25	3.7	6	20	3.6	5	/	3.4	5	/	3.3	5	/				
	300							3.5	5	/	3.0	5	/	2.9	5	/	2.8	5	/							
600	400										2.6	5	/	2.5	5	/										
	100							6.6	37	40	6.4	24	35	6.1	17	31	5.8	13	28	5.5	10	25	5.3	8	22	
700	200				6.4	37	40	5.2	17	31	4.5	10	25	4.4	6	20	4.2	5	/	4.0	5	/	3.6	5	/	
	300							4.2	8	22	3.6	5	/	3.5	5	/	3.4	5	/	3.2	5	/				
800	400										3.2	5	/	3.1	5	/	2.9	5	/							
	500										2.7	5	/													
900	100										7.7	53	45	7.5	34	40	7.1	24	36	6.8	18	32	6.5	14	30	
	200				7.4	53	45	6.0	24	36	5.2	14	30	5.1	9	25	4.9	6	21	4.6	5	/	4.4	5	/	
1000	300							4.9	11	27	4.3	6	21	4.1	5	/	3.9	5	/	3.8	5	/	3.6	5	/	
	400										3.7	5	/	3.6	5	/	3.4	5	/	3.3	5	/				
1100	500										3.2	5	/	3.1	5	/	3.1	5	/							
	100																									
1200	100																									
	200																									

Supply Grilles - ADG (continued)



AIR VOL (U/s)	HEIGHT	WIDTH																																								
		100		200		300		400		500		600		700		800		900		1000		1100		1200																		
		T	Pa	NR	T	Pa	NR	T	Pa	NR	T	Pa	NR	T	Pa	NR	T	Pa	NR	T	Pa	NR	T	Pa	NR																	
350	100																																									
	200																																									
	300	6.9	33	40	6.0	19	34	44	8.1	33	40	7.7	24	36	34	19	34	7.4	19	34	7.1	15	31	6.8	12	29	6.5	10	27	6.3	9	25	4.5	5	4.3	5	/					
	400	5.6	15	31	4.9	9	25	4.7	6	20	4.5	5	4.3	5	/	4.1	5	/	3.9	5	/	3.9	5	/																		
400	500																																									
	600																																									
	100																																									
	200	7.7	42	43	6.7	24	37	6.5	16	32	6.2	11	28	5.9	8	25	5.7	6	22	5.4	5	20	5.2	4	4.2	5	/	7.3	13	30	7.1	11	28	4.8	5	/						
450	300	6.3	19	35	5.4	11	28	5.3	7	23	5.1	5	20	4.8	5	4.6	5	/	4.4	5	/	4.4	5	/	4.2	5	/	4.2	5	/	4.2	5	/	4.2	5	/	4.2	5	/	4.2	5	/
	400																																									
	500																																									
	600																																									
500	100																																									
	200																																									
	300	7.0	24	38	6.0	14	31	5.9	9	26	5.6	6	23	5.3	5	20	5.1	5	4.9	5	/	4.7	5	/	4.7	5	/	4.7	5	/	4.7	5	/	4.7	5	/	4.7	5	/	4.7	5	/
	400																																									
600	500																																									
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	100																																									
	200																																									
700	300																																									
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Supply Grilles - ADG (continued)

AIR VOL (U/s)	HEIGHT	WIDTH																								
		100		200		300		400		500		600		700		800		900		1000		1100		1200		
		T	Pa	NR	T	Pa	NR	T	Pa	NR	T	Pa	NR	T	Pa	NR	T	Pa	NR	T	Pa	NR	T	Pa	NR	
800	100																									
800	200																									
800	300																									
800	400																									
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5000	600																									

Extract Grilles - ADG



AIR VOL (l/s)	HEIGHT	WIDTH																										
		100		200		300		400		500		600		700		800		900		1000		1100		1200				
		Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR			
25	100	20	27	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	
	100		16	28	7	20	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/
50	200		5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/
	100		36	38	15	28	8	22	5	20	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/
75	200		7	20	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/
	300				5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/
100	100		63	46	27	36	15	29	9	24	7	20	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/
	200		13	28	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/
300	100				5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/
	200				41	42	23	35	14	30	10	26	7	23	6	20	5	/	5	/	5	/	5	/	5	/		
125	200		20	34	9	24	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/
	300				5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/
150	100						32	40	20	35	14	31	10	27	8	24	6	22	5	20	5	/	5	/	5	/		
	200				28	39	12	29	7	22	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/
300	100				5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/
	200						5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/
400	100						44	44	28	39	19	35	14	31	11	28	9	26	7	23	6	21	5	/				
	200				39	43	16	33	9	26	6	21	5	/	5	/	5	/	5	/	5	/	5	/	5	/		
175	300				7	23	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/		
	400						5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/		
200	100				57	47	36	42	25	38	18	35	14	32	11	29	9	27	7	25	6	23	5	/				
	200				50	46	21	36	12	30	7	25	5	/	5	/	5	/	5	/	5	/	5	/	5	/		
300	100				9	27	5	20	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/		
	200						5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/		
400	100						42	46	29	42	21	39	16	36	13	33	11	31	9	29	7	27	5	/				
	200				25	40	14	34	9	29	6	24	5	21	5	/	5	/	5	/	5	/	5	/	5	/		
250	300				11	31	6	24	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/		
	400						5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/		
500	100						5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/		
	200								55	49	40	45	31	42	24	40	20	37	16	35	14	33	5	/				
300	100				47	47	26	40	16	35	11	31	8	28	6	25	5	20	5	/	5	/	5	/				
	200				20	37	11	31	7	26	5	22	5	20	5	/	5	/	5	/	5	/	5	/				
400	100						6	24	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/		
	200								5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/		
500								5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/	5	/			

Extract Grilles - ADG (continued)

AIR VOL (l/s)	HEIGHT	WIDTH																								
		100		200		300		400		500		600		700		800		900		1000		1100		1200		
		Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR	
350	100																									
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Extract Grilles - ADG (continued)

AIR VOL (l/s)	HEIGHT	WIDTH																								
		100		200		300		400		500		600		700		800		900		1000		1100		1200		
		Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR	Pa	NR	
800	200																									
	300																									
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Notes

ADG