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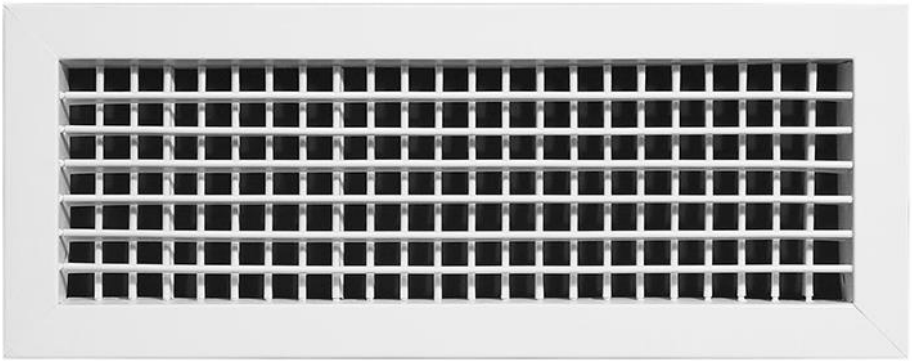
DOUBLE DEFLECTION WALL REGISTER
Model AGI-DDR



APPLICATIONS

Double deflection wall registers feature two cores with adjustable blades that allow for custom blow patterns to be created on both horizontal and vertical planes.

These excellent all purpose grilles are suitable for use in cooling, heating and ventilation applications.

Double Deflections (AGI-DD) are recommended for supply air applications.

Single deflections (AGI-SD) are recommended for exhaust and return air applications.

High velocity double deflections (AGI-HVDD) are recommended for evaporative air conditioning applications.

STOCK SIZES (mm)

250 x 250	400 x 300	500 x 300
300 x 100	400 x 350	500 x 350
300 x 150	400 x 400	500 x 400
300 x 200	450 x 100	500 x 500
300 x 250	450 x 150	550 x 500
300 x 300	450 x 200	550 x 550
350 x 150	450 x 250	600 x 100
350 x 200	450 x 300	600 x 150
350 x 250	450 x 350	600 x 200
350 x 300	450 x 400	600 x 250
350 x 350	450 x 450	600 x 300
400 x 100	500 x 100	600 x 400
400 x 150	500 x 150	600 x 450
400 x 200	500 x 200	600 x 500
400 x 250	500 x 250	600 x 600

Sizes shown are nominal neck (width x height).

FEATURES

Manufactured from all aluminium extrusions.

Supplied with adjustable blades and removable cores as standard.

Removable cores makes them simple to install, clean and access dampers (if any) located behind registers.

Mullions are fitted when the blade length exceeds 700mm in any direction.

A large selection of stock sizes are available. Other sizes can be made to suit your application.

Standard finish powder coat satin white

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The table below gives the minimum height for a flat ceiling for satisfactory performance, based on the register being mounted between 300 and 600 mm below the ceiling for a range of flows between 3 and 20 meters.

Output Velocity	Minimum Ceiling Height in Meters								
	3	4.5	6	7.5	9	10.5	12	15	18
2.0	2.4	2.7	3.0	3.3	3.7	4.0	4.3	4.6	4.9
2.5	2.4	2.7	3.0	3.0	3.3	3.7	4.0	4.3	4.6
3.0	2.4	2.7	2.7	3.0	3.3	3.7	4.0	4.3	4.6
4.0	2.4	2.7	2.7	3.0	3.3	3.3	3.7	4.0	4.3
5.0	2.1	2.4	2.4	2.7	3.0	3.0	3.3	3.7	4.0
6.0	2.1	2.4	2.4	2.7	3.0	3.0	3.3	3.3	3.7
7.0	1.8	2.1	2.4	2.7	2.7	3.0	3.0	3.3	3.3
8.0	1.8	1.8	2.1	2.4	2.4	2.7	2.7	3.0	3.0
	Throw Range In Meters								

Table 1.

The above figures are for straight blow and 22.5°.
For 45° vane setting, deduct 300mm from ceiling height.

Outlet Velocity	Noise Rating NR	Typical Applications
2.5 m/s	25 - 30	Bedroom, Auditoriums
3.7 m/s	35 - 40	Private Office
5.0 m/s	40 - 45	General Office
7.5 m/s	50 - 60	Light Industrial

Table 2.

Design NR Values bases on AIRAH DA2, Noise Control.

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Air Vol L/s	Register Size	200 x 100		250 x 100		300 x 100 200 x 150 250 x 150		300 x 150 450 x 100			500 x 100 250 x 200 350 x 150		
	Vane Setting	0°	45°	0°	45°	0°	45	0°	22.5°	45°	0°	22.5°	45°
50	Throw m	5	3.5	4	3	4	3						
	Vel m/s	3.5	4.5	3	3.5	2.5	3						
	SP in Pa	7	11	4	7	3	4						
75	Throw m	7.5	5.5	6.5	5	6	4	5	4	3.5			
	Vel m/s	5	6.5	5	5	3.5	4.5	2	2.5	3			
	SP in Pa	15	23	10	15	7	11	3	3	5			
100	Throw m	10.5	7	8.5	6	8.0	6	6.5	5.5	5	6	5	4
	Vel m/s	7	8.5	5.5	7	4.5	6	3	3.5	4	2.5	3	3.5
	SP in Pa	28	43	17	28	12	20	5	7	8	4	5	6
125	Throw m	12	8.5	11	8	10.5	7.5	8	7	6	7.5	6.5	4
	Vel m/s	8.5	11	6.5	8.5	6	7	4	4	5	3.5	3.5	3.5
	SP in Pa	43	66	26	43	19	30	8	10	14	6	7	6
150	Throw m			13.5	9.5	12	8.5	10	8	7.4	9	8	6.4
	Vel m/s			8	10.5	7	8.5	4.5	5	5.5	4	4	5
	SP in Pa			37	64	28	43	12	15	18	8	11	14
200	Throw m							13	11	9	11	10.5	8.5
	Vel m/s							6	6.5	7.5	5	6	6.5
	SP in Pa							20	30	33	14	19	24
250	Throw m							16.5	14	12	15	12.5	10.5
	Vel m/s							7.5	8.5	9.5	6	7	8
	SP in Pa							31	40	51	23	29	36
300	Throw m										17.9	15.1	13
	Vel m/s										7.5	8.5	9.5
	SP in Pa										33	43	54

Air Volume – Liters per Second (l/s)
Throw (m) is to a terminal velocity of 0.25m/s
Static Pressure – Pascals (Pa)
Core Velocity – Meters per Second (m/s)

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Air Vol L/s	Register Size	300 x 200 400 x 150 600 x 100			350 x 200 500 x 150 750 x 100			450 x 200 600 x 150 900 x 100			400 x 250 500 x 200 750 x 150			500 x 250 600 x 200 900 x 150		
	Vane Setting	0°	22.5°	45°	0°	22.5°	45°	0°	22.5°	45°	0°	22.5°	45°	0°	22.5°	45°
100	Throw m	5.5	5	4	5	4.5	3.5									
	Vel m/s	2	2.5	3	2	2	2.5									
	SP in Pa	2.5	3	4	2.5	2.5	3									
125	Throw m	6.5	6	5	6	5.5	4	6	5	4						
	Vel m/s	2.5	3	3.5	2	2.5	2.5	2	2	2.5						
	SP in Pa	4	5	6	2.5	4	4.5	2	2.5	3						
150	Throw m	8	7.5	6	7.5	6.7	5.5	6.5	6	5	6	4.5	4			
	Vel m/s	3	3.7	4	2.5	3	3	2	2.5	2.5	2	2	2.5			
	SP in Pa	6	7.5	9.5	3.5	5	6	2.5	3	4	2	2	3			
200	Throw m	11	9.5	7.5	10	8.5	7	9	7.5	6.5	8.5	7.5	6			
	Vel m/s	4	5	5.5	3.5	4	4.5	3	3	3.5	2.5	3	3			
	SP in Pa	10.5	13.5	16	6.5	9.5	10.5	5	6	7.5	3.5	5	3			
250	Throw m	14	11.9	9.5	12	11	9	11	9.5	8	11	9	8	9.5	8.5	7
	Vel m/s	5	6	6.5	4	5	5.5	3.5	4	4.5	3	3.5	4.5	2.5	3	3
	SP in Pa	16	20	25	10	14	16.5	7	9.5	11.5	5.5	7.5	11.5	3.5	5	6
300	Throw m	16.5	14	12	14.5	12.5	10.5	13.5	11.5	9.5	12.5	10.5	8.5	11	10.5	8
	Vel m/s	6	7.5	8	5.0	6	6.5	4	5	5.5	3.5	4.5	4.5	3	3.5	3.5
	SP in Pa	23	29	37	14	20	24	10	10	16.5	7.5	10.5	13	5.5	7.5	8.5
350	Throw m	19	16	14	17.5	15	12	15.5	13.5	11	14.5	12	10.5	13	12	9.5
	Vel m/s	7.5	8.5	9	6	7	7.5	5	5.5	6	4.5	5	5.5	3.5	4	4.5
	SP in Pa	30	40	48	20	28	32	13.5	18	22	10.5	14.5	17.5	7	10	12.5
400	Throw m	22	18.5	15	19.5	17	14	17.5	15.5	12	16.5	14.5	12	15	13.5	10.9
	Vel m/s	8.5	9.5	10.5	6.5	8	8.5	5.5	6.5	7	5	5.5	6	4	5	5
	SP in Pa	40	54	66	25	36	43	17.5	24	28	13.5	18	22	9	13.5	15.5

Air Volume – Liters per Second (l/s)
Throw (m) is to a terminal velocity of 0.25m/s
Static Pressure – Pascals (Pa)
Core Velocity – Meters per Second (m/s)

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Air Vol L/s	Register Size	300 x 200 400 x 150 600 x 100			350 x 200 500 x 150 750 x 100			450 x 200 600 x 150 900 x 100			400 x 250 500 x 200 750 x 150			500 x 250 600 x 200 900 x 150		
	Vane Setting	0°	22.5°	45°	0°	22.5°	45°	0°	22.5°	45°	0°	22.5°	45°	0°	22.5°	45°
450	Throw m				22	18.5	15.5	20	17	14	18	16	13.5	17	14.5	12
	Vel m/s				7.5	9	9.5	6	7.5	8	5.5	6.5	7	4.5	5.5	6
	SP in Pa				32	45	54	22	30	37	16.5	20	28	11	16.5	20
500	Throw m				24	21	17.5	22	18.5	15.5	21	18	15	18.5	16	14
	Vel m/s				8.5	10	10.5	7	8	9	6	7	8	5	6	6.5
	SP in Pa				40	56	66	23	37	45	21	29	36	13.5	20	24
550	Throw m							24	21	17.5	23	19.5	16.5	21	17.5	15
	Vel m/s							7.5	9	9.5	6.5	8	8.5	5.5	6.5	7
	SP in Pa							32	45	54	25	36	43	1.5	24	30
600	Throw m							27	23	19	25	21	18.5	22	19	16
	Vel m/s							8.5	9.5	10.5	7.5	8.5	9.5	6	7	8
	SP in Pa							39	54	66	30	43	51	20	28	35

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Static Pressure – Pascals (Pa)
Core Velocity – Meters per Second (m/s)

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Air Vol L/s	Register Size	750 x 200 600 x 250 500 x 300			900 x 200 750 x 250 600 x 300			1200 x 200 900 x 250 750 x 300			1050 x 250 900 x 300 750 x 350			1200 x 250 1000 x 300 900 x 350		
	Vane Setting	0°	22.5°	45°	0°	22.5°	45°	0°	22.5°	45°	0°	22.5°	45°	0°	22.5°	45°
100	Throw m	3.5	2.5	2.1	2.9	2.1	1.8	2.5	1.8	1.5						
	Vel m/s	0.9	1.1	1.3	0.8	1.0	1.2	0.7	0.9	1.1						
	SP in Pa	<2	<2	<2	<2	<2	<2	<2	<2	<2						
300	Throw m	10.5	8.5	7.5	9.5	7.5	6.5									
	Vel m/s	2.5	3	3	2	2.5	2.5									
	SP in Pa	3	4.5	5.5	2.5	3	4.5									
350	Throw m	11.5	10.5	8.5	11	9.5	7.5	10.5	8.5	7						
	Vel m/s	3	3.5	3.5	2.5	2.5	3	2	2	2.5						
	SP in Pa	5	6.5	7.5	3	4	5	2.5	2.5	3						
400	Throw m	13.5	13	9.5	12	10.5	9	12	9.5	8	10.5	9	7.5			
	Vel m/s	3.5	4	4	2.5	3	3.5	2.5	2.5	3	2	2.5	2.5			
	SP in Pa	6	9	10	4	5.5	7	3	3.5	3.5	2.5	2.5	3.5			
450	Throw m	14.5	13.5	11	14	12	10	13	11	9	11.5	9.5	8.5			
	Vel m/s	3.5	4.5	4.5	3	3.5	4	2.5	3	3	2.5	2.5	3			
	SP in Pa	7.5	10.5	12.5	5	7	9	4	4	5.5	3	3.5	4.5			
500	Throw m	17	14.5	12	15.5	13	11	15	12	10	12	10.5	9	12	10.5	8.3
	Vel m/s	4	5	5	3.5	4	4.5	3	3	3.5	2	2.5	3	2	2.5	2.5
	SP in Pa	9.5	13.5	15.5	6.5	9	10.5	5	6	7	2.5	3.5	4.5	2.5	3	3.5
550	Throw m	18.5	16	13.5	17	14.5	12	16.5	13	11	14	12	10	13	11	9.5
	Vel m/s	4.5	5.5	5.5	4	4.5	4.5	3	3.5	4	2.5	3	3.5	2	2.5	3
	SP in Pa	11.5	16.5	18	8	10.5	13	6	7	8.5	3	4.5	6	5	4	4
600	Throw m	20	17.6	14.5	18.5	15.5	13	18.5	14	12	15	13	11	14	12	10.5
	Vel m/s	5	6	6	4	4.5	5	3.5	4	4	2.5	3	3.5	2.5	3	3
	SP in Pa	13.5	17.5	22	9.5	12.5	15	7	8.5	10	4	5	7	4.5	5.5	6.5
650	Throw m	22	19	15.5	20	17	14.5	19	15.5	13	16	14	12	15.5	13	11
	Vel m/s	5.5	6.5	6.5	4.5	5	6	4	4	4.5	3	3.5	4	2.5	3	3.5
	SP in Pa	16	20	26	10.5	13.5	17.5	8.5	10	12	5	6	8.5	4.5	5.5	6.5

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Static Pressure – Pascals (Pa)
Core Velocity – Meters per Second (m/s)

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Air Vol L/s	Register Size	750 x 200 600 x 250 500 x 300			900 x 200 750 x 250 600 x 300			1200 x 200 900 x 250 750 x 300			1050 x 250 900 x 300 750 x 350			1200 x 250 1000 x 300 900 x 350		
	Vane Setting	0°	22.5°	45°	0°	22.5°	45°	0°	22.5°	45°	0°	22.5°	45°	0°	22.5°	45°
700	Throw m	24	20	17	22	18.5	15.5	22	16.5	14	17.5	14.5	13	16.5	14	12
	Vel m/s	5	6	7.5	4.5	5.5	6	4	4.5	5	3	3	4	3	3	3.5
	SP in Pa	18	24	30	12	16.5	20	10	11.5	11.5	5.5	5.5	9.5	5	6.5	7.5
800	Throw m	27	23	19	24	21	17.5	23	18.5	15.5	20	17	14.5	19	16	13
	Vel m/s	6.5	8	8.5	5.5	6	7	5	5	5.5	3.5	4	4.5	3	3.5	4
	SP in Pa	23	32	40	16	22	27	13.5	15	17.5	7	9.5	12	6.5	8	10
900	Throw m	31	26	21	28	24	20	26	22	17.5	22	19	16	21	18.5	15
	Vel m/s	7	8.5	9	6	7	7.5	5.5	6	6	4	4.5	5	3.5	4	4.5
	SP in Pa	30	40	47	20	28	34	16.5	19	22	19.5	12	15	10	11	12.5
1000	Throw m	33	29	25	31	26	22	30	24	20	25	21	18	23	20	17
	Vel m/s	8	9	10	6.5	8	9	6	6	7	4.5	5	6	4	4.5	5
	SP in Pa	37	49	64	24	33	24	20	24	28	10.5	14.5	19	11	13.5	15.5
1100	Throw m				33	29	24	31	26	22	28	23	20	26	22	19
	Vel m/s				7	8.5	9.5	6.5	7	7.5	5	5.5	6.5	5	5.5	5.5
	SP in Pa				29	40	51	24	28	33	13.5	17	23	16	18	20
1200	Throw m				34	32	27	32	28	24	30	26	22	27	24	20
	Vel m/s				8	9.5	10	7	7.5	8.5	5.5	6	7	5.5	6	6.5
	SP in Pa				36	50	60	28	34	40	16	22	28	18.5	20	22
1300	Throw m							34	30	26	32	27	24	31	25	22
	Vel m/s							7.5	8	10	5.5	6.5	8	5.5	6	7
	SP in Pa							32	39	48	18	24	32	21	23	26
1400	Throw m							37	33	28	34	32	27	32	28	25
	Vel m/s							8	8.5	9.5	6.5	7.5	8.5	5.5	6.5	7.5
	SP in Pa							37	45	54	24	32	42	23	26	32

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Static Pressure – Pascals (Pa)
Core Velocity – Meters per Second (m/s)