idealair
group

AERIUS

Double deflection grille

DDFC
DDRC
DDCF
SD

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PRODUCT DATA SHEET

1 YR WARRANTY

DOUBLE DEFLECTION GRILLE

Overview

The Double Deflection Grille series is designed for supply air in wall applications. The grilles are constructed in aluminium and feature an adjustable horizontal front and vertical rear blades. This allows for accurate and personalised air distribution. The grilles come in two styles, fixed and removable core. The blades are an aerofoil shape to give efficient airflow with minimal noise and pressure performance. The frame is designed to allow for easy fitment of a rear opposed blade damper. The standard grilles are powder coated RAL9016 and come in a number of stocked sizes. Non standard sizes and colour are available on request, please contact your local representative.

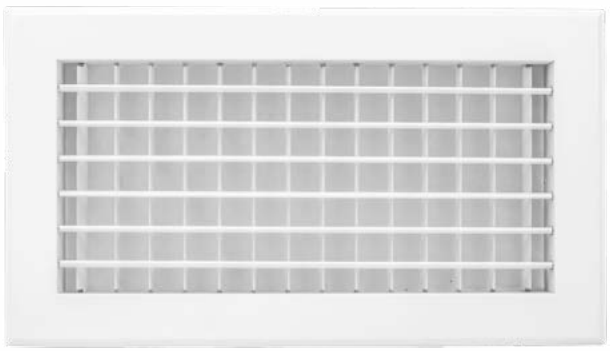
DDFC
Double deflection – fixed core

DDRC
Double deflection – removable core

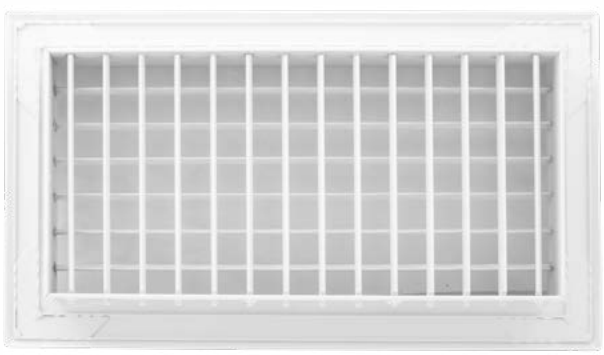
DDCF
Double deflection – curved face

SD
Single deflection

Side perspective



Front view



Rear view

End view

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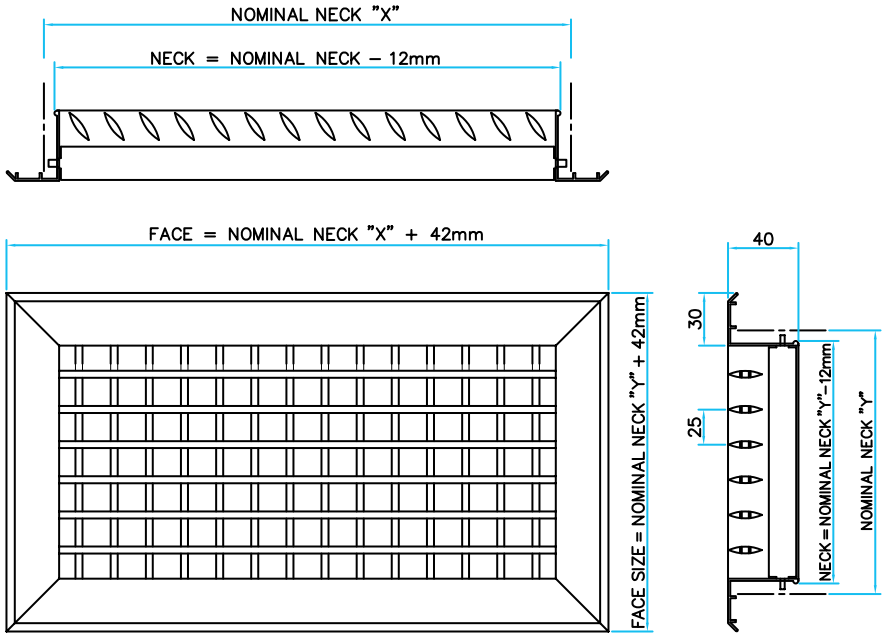
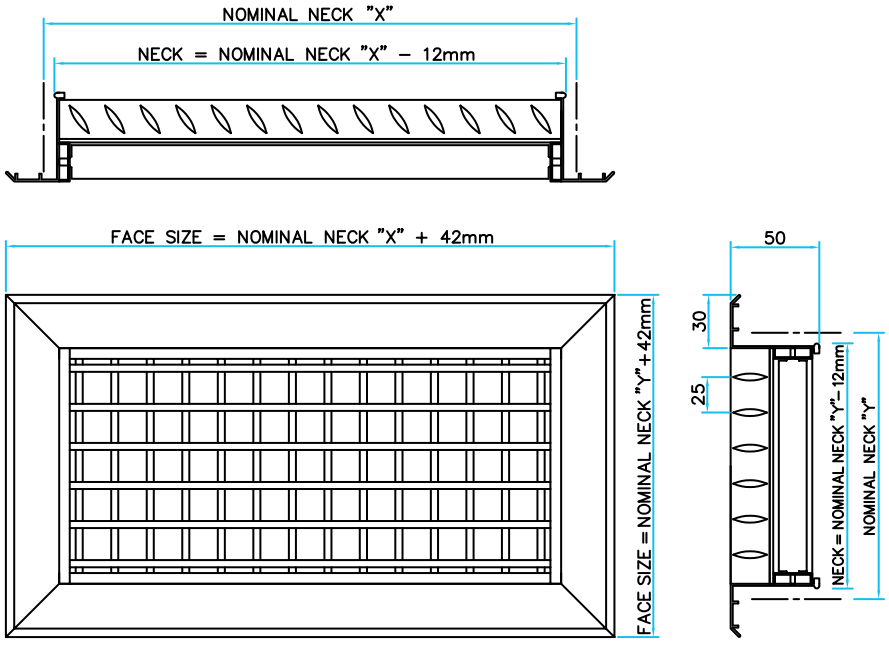


DDFC - FIXED CORE
DOUBLE DEFLECTION GRILLE



DDRC - REMOVABLE CORE
DOUBLE DEFLECTION GRILLE

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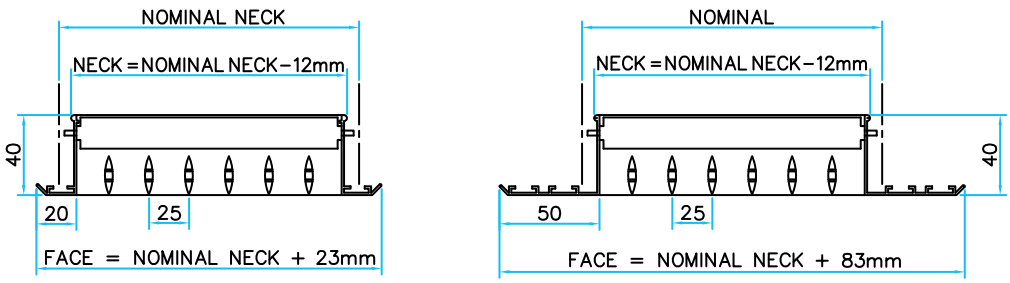
Options

Double Deflection Grilles are available (upon request) with:

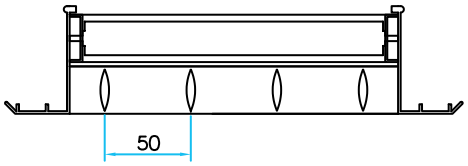
1. A wider outer frame flange for fixed core only



NARROW FRAME
FOR PRODUCT DD - FIXED CORE ONLY

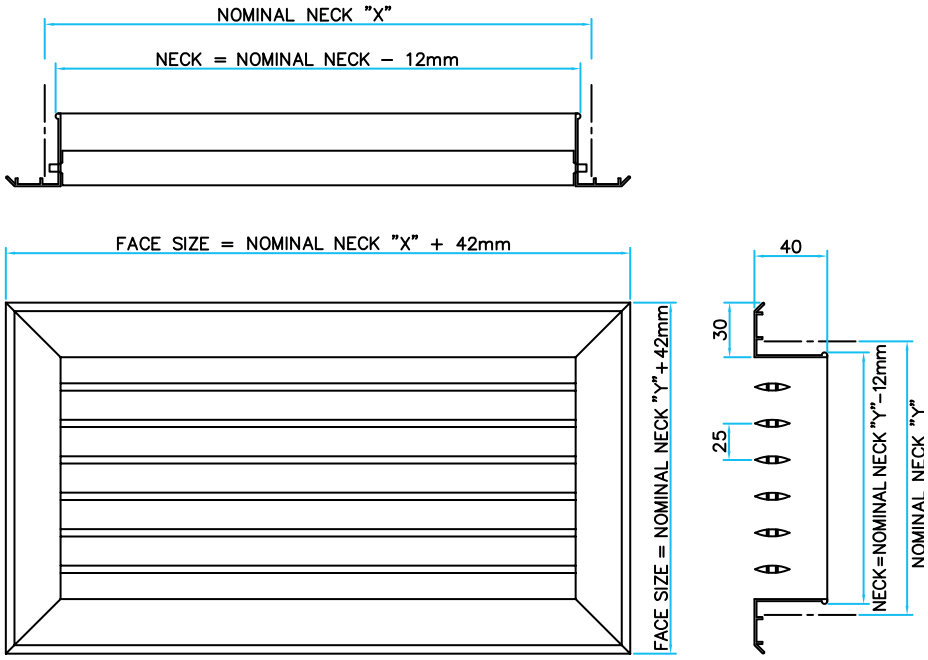
WIDE FRAME
FOR PRODUCT DD - FIXED CORE ONLY

2. Double spaced blades for all DD products



OPTION - DOUBLE SPACED BLADE
AVAILABLE FOR ALL DD PRODUCTS

3. Single Deflection



SD - SINGLE DEFLECTION GRILLE

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Technical Data
D/Deflection Blades Set at 0 Degrees

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Size (mm)	Nom. Area (m^2)	Pressure (Pa)	3	5	10	20	30	40	50
200 x 200	0.040 (0.026 f/a)	Flow Rate (l/s)	94	112	166	241	294	342	
		Throw 0° (m)	4.5 to 9.0	5.2 to 10.5	7.8 to 15.6	13.5 to 27.0	17.0 to 34.0	19.0 to 38.0	22.0 to 44.0
		Noise (dBa)	<20	<20	23	33	39	43	47
300 x 150	0.045 (0.03 f/a)	Flow Rate (l/s)	102	134	187	273	332	385	428
		Throw 0° (m)	4.5 to 9.0	6.0 to 12.0	8.0 to 16.0	11.0 to 22.0	14.0 to 28.0	17.0 to 34.0	18.0 to 36.0
		Noise NR	<20	<20	<20	34	40	43	47
400 x 150 300 x 200 250 x 250	0.060 (0.04 f/a)	Flow Rate (l/s)	144	182	262	375	465	524	589
		Throw 0° (m)	6.0 to 12.0	7.0 to 14.0	10.0 to 20.0	13.5 to 27.0	17.0 to 34.0	19.0 to 38.0	22.0 to 44.0
		Noise NR	<20	<20	23	33	39	43	47
500 x 150 300 x 250 400 x 200	0.075 (0.05 f/a)	Flow Rate (l/s)	177	230	326	460	556	642	696
		Throw 0° (m)	6.0 to 12.0	7.0 to 14.0	11.0 to 22.0	15.0 to 30.0	18.0 to 36.0	22.0 to 44.0	24.0 to 48.0
		Noise NR	<20	<20	23	33	38	44	47
600 x 150 300 x 300	0.090 (0.06 f/a)	Flow Rate (l/s)	225	294	417	578	696	813	910
		Throw 0° (m)	7.0 to 14.0	9.0 to 18.0	12.0 to 24.0	18.0 to 36.0	22.0 to 44.0	24.0 to 48.0	27.0 to 54.0
		Noise NR	<20	<20	23	34	39	44	47
400 x 300 600 x 200 500 x 250	0.012 (0.08 f/a)	Flow Rate (l/s)	273	353	498	706	856	984	1091
		Throw 0° (m)	7.0 to 14.0	9.0 to 19.0	13.0 to 26.0	19.0 to 38.0	23.0 to 46.0	25.0 to 50.0	27.0 to 54.0
		Noise NR	<20	<20	24	34	40	44	47
1000 x 150 750 x 200 600 x 250 500 x 300 400 x 400	0.150 (0.10 f/a)	Flow Rate (l/s)	337	433	615	899	1124	1295	1471
		Throw 0° (m)	8.0 to 16.0	10.5 to 21.0	15.0 to 30.0	21.0 to 42.0	24.0 to 48.0	27.0 to 54.0	30.0 to 60.0
		Noise NR	<20	<20	25	36	42	46	50
1200 x 150 900 x 200 750 x 250 600 x 300 450 x 400	0.180 (0.12 f/a)	Flow Rate (l/s)	391	503	749	936	1231	1455	1605
		Throw 0° (m)	9.0 to 18.0	11.0 to 22.0	16.0 to 32.0	22.0 to 44.0	26.0 to 52.0	28.0 to 56.0	33.0 to 66.0
		Noise NR	<20	<20	26	37	43	48	51
600 x 400 1200 x 200	0.240 (0.15 f/a)	Flow Rate (l/s)	492	642	856	1263	1605	1755	2033
		Throw 0° (m)	10.0 to 20.0	13.0 to 26.0	18.0 to 36.0	24.0 to 48.0	28.0 to 56.0	32.0 to 64.0	36.0 to 66.0
		Noise NR	<20	<20	27	37	43	47	50
900 x 300	0.270 (0.18 f/a)	Flow Rate (l/s)	589	749	1102	1552	1873	2247	2515
		Throw 0° (m)	11.0 to 22.0	14.0 to 28.0	20.0 to 40.0	27.0 to 54.0	30.0 to 60.0	36.0 to 72.0	40.0 to 80.0
		Noise NR	<20	<20	27	38	43	48	51
900 x 400 1200 x 300	0.360 (0.24 f/a)	Flow Rate (l/s)	703	963	1284	1947	2354	2675	2889
		Throw 0° (m)	12.0 to 24.0	16.0 to 32.0	22.0 to 44.0	28.0 to 56.0	35.0 to 70 .0	40.0 to 80 .0	43.0 to 86.0
		Noise NR	<20	<20	28	39	46	50	54

This data to be used for quick selection only, not to be used for commissioning.

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Technical Data
D/Deflection Blades Set at 22 Degrees

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Size (mm)	Nom. Area (m^2)	Pressure (Pa)	3	5	10	20	30	40	50
300 x 150 450 x 100	0.045 (0.03 f/a)	Flow Rate (l/s)	74	97	136	199	242	280	312
		Throw 22° (m)	2.0 to 4.0	3.0 to 6.0	4.5 to 9.0	6.0 to 12.0	7.0 to 14.0	9.0 to 18.0	10.0 to 20.0
		Noise (dBa)	<20	<20	<20	30	36	41	43
400 x 150 300 x 200 250 x 250	0.06 (0.04 f/a)	Flow Rate (l/s)	105	133	190	273	339	382	429
		Throw 22° (m)	2.5 to 5.0	3.5 to 7.0	5.0 to 10.0	7.0 to 14.0	8.5 to 17.0	10.0 to 20.0	11.0 to 22.0
		Noise (dBa)	<20	<20	<20	29	35	40	43
500 x 150 300 x 250 400 x 200	0.075 (0.05 f/a)	Flow Rate (l/s)	128	167	238	335	406	469	507
		Throw 22° (m)	3.0 to 6.0	4.0 to 8.0	5.5 to 11.0	8.0 to 16.0	9.0 to 18.0	11.0 to 22.0	12.5 to 25.0
		Noise (dBa)	<20	<20	<20	29	35	39	42
600 x 150 300 x 300	0.09 (0.06 f/a)	Flow Rate (l/s)	164	214	304	422	507	593	663
		Throw 22° (m)	3.5 to 7.0	4.5 to 9.0	6.0 to 12.0	9.0 to 18.0	10.0 to 20.0	12.0 to 24.0	13.0 to 26.0
		Noise (dBa)	<20	<20	<20	28	34	38	42
400 x 300 600 x 200 500 x 250	0.012 (.08 f/a)	Flow Rate (l/s)	199	257	363	515	625	718	796
		Throw 22° (m)	4.0 to 8.0	5.0 to 10.0	7.0 to 14.0	9.5 to 19.0	11.0 to 22.0	13.5 to 27.0	14.0 to 28.0
		Noise (dBa)	<20	<20	<20	27	34	38	41
1000 x 150 750 x 200 600 x 250 500 x 300 400 x 400	0.15 (0.10 f/a)	Flow Rate (l/s)	245	316	448	656	820	945	1073
		Throw 22° (m)	4.5 to 9.0	5.5 to 11.0	8.0 to 16.0	11.0 to 22.0	13.0 to 26.0	14.0 to 28.0	15.0 to 30.0
		Noise (dBa)	<20	<20	<20	29	34	39	42
1200 x 150 900 x 200 750 x 250 600 x 300 450 x 400	0.18 (0.12 f/a)	Flow Rate (l/s)	285	367	547	683	898	1061	1172
		Throw 22° (m)	4.75 to 9.5	6.0 to 12.0	9.0 to 18.0	11.5 to 23.0	13.5 to 27.0	14.5 to 29.0	16.0 to 32.0
		Noise (dBa)	<20	<20	<20	29	35	40	43
600 x 400 1200 x 200	0.24 (0.15 f/a)	Flow Rate (l/s)	358	469	625	921	1172	1281	1484
		Throw 22° (m)	5.5 to 9.0	7.0 to 14.0	9.5 to 19.0	12.5 to 25.0	14.0 to 28.0	16.0 to 32.0	17.0 to 34.0
		Noise (dBa)	<20	<20	<20	29	34	39	42
900 x 300	0.27 (0.18 f/a)	Flow Rate (l/s)	429	547	804	1132	1366	1640	1835
		Throw 22° (m)	6.0 to 12.0	8.0 to 16.0	10.5 to 21.0	13.0 to 26.0	14.5 to 29.0	16.5 to 33.0	18.0 to 36.0
		Noise (dBa)	<20	<20	<20	28	34	38	42
900 x 400 1200 x 300	0.36 (0.24 f/a)	Flow Rate (l/s)	589	703	1070	1412	1766	2087	2301
		Throw 22° (m)	7.0 to 14.0	9.0 to 18.0	12.0 to 24.0	15.0 to 30.0	16.0 to 32.0	18.0 to 36.0	19.5 to 39.0
		Noise (dBa)	<20	<20	<20	31	36	41	44

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Technical Data
D/Deflection Blades Set at 45 Degrees

idealair group

Size (mm)	Nom. Area (m^2)	Pressure (Pa)	3	5	10	20	30	40	50
300 x 150 450 x 100	0.045 (0.03 f/a)	Flow Rate (l/s)	59	77	108	157	192	223	248
		Throw 45° (m)	1.0 to 2.0	1.5 to 3.0	2.5 to 5.0	4.0 to 8.0	5.0 to 10.0	5.5 to 11.0	6.0 to 12.0
		Noise NR	<20	<20	<20	28	33	37	40
400 x 150 300 x 200 250 x 250	0.060 (0.04 f/a)	Flow Rate (l/s)	83	105	152	217	270	304	341
		Throw 45° (m)	1.5 to 3.0	2.0 to 4.0	3.0 to 6.0	4.5 to 9.0	5.5 to 11.0	6.5 to 13.0	7.5 to 15.0
		Noise NR	<20	<20	<20	27	32	36	38
500 x 150 300 x 250 400 x 200	0.075 (0.05 f/a)	Flow Rate (l/s)	102	133	188	266	322	372	403
		Throw 45° (m)	1.5 to 3.0	2.5 to 5.0	3.5 to 7.0	5.5 to 11.0	6.0 to 12.0	7.5 to 15.0	8.5 to 17.0
		Noise NR	<20	<20	<20	27	32	36	38
600 x 150 300 x 300	0.090 (0.06 f/a)	Flow Rate (l/s)	129	170	242	335	403	471	528
		Throw 45° (m)	2.0 to 4.0	2.5 to 5.0	4.0 to 8.0	5.5 to 11.0	7.0 to 14.0	8.5 to 17.0	9.0 to 18.0
		Noise NR	<20	<20	<20	27	32	36	39
400 x 300 600 x 200 500 x 250	0.012 (0.08 f/a)	Flow Rate (l/s)	157	204	288	409	496	570	632
		Throw 45° (m)	2.0 to 4.0	3.0 to 6.0	4.5 to 9.0	6.0 to 12.0	7.5 to 15.0	9.0 to 19.0	10.0 to 20.0
		Noise NR	<20	<20	<20	27	32	36	38
1000 x 150 750 x 200 600 x 250 500 x 300 400 x 400	0.150 (0.10 f/a)	Flow Rate (l/s)	195	250	356	521	652	750	853
		Throw 45° (m)	2.5 to 5.0	3.5 to 7.0	5.0 to 10.0	7.0 to 14.0	9.0 to 18.0	10.0 to 20.0	11.0 to 22.0
		Noise NR	<20	<20	<20	27	32	36	39
1200 x 150 900 x 200 750 x 250 600 x 300 450 x 400	0.180 (0.12 f/a)	Flow Rate (l/s)	226	291	434	542	714	843	931
		Throw 45° (m)	3.0 to 6.0	4.0 to 8.0	5.5 to 11.0	8.0 to 16.0	9.5 to 19.0	11.0 to 22.0	12.0 to 24.0
		Noise NR	<20	<20	20	26	32	35	38
600 x 400 1200 x 200	0.240 (0.15 f/a)	Flow Rate (l/s)	294	391	556	749	931	1102	1179
		Throw 45° (m)	3.0 to 6.0	4.5 to 9.0	5.5 to 11.0	9.0 to 19.0	10.0 to 20.0	11.0 to 22.0	12.0 to 24.0
		Noise NR	<20	<20	<20	26	31	35	38
900 x 300	0.270 (0.18 f/a)	Flow Rate (l/s)	369	476	642	910	1150	1338	1458
		Throw 45° (m)	3.5 to 7.0	4.5 to 9.0	6.5 to 13.0	9.0 to 18.0	11.0 to 22.0	14.0 to 28.0	16.0 to 32.0
		Noise NR	<20	<20	<20	25	30	35	38
900 x 400 1200 x 300	0.360 (0.24 f/a)	Flow Rate (l/s)	487	722	910	1257	1552	1766	2006
		Throw 45° (m)	4.0 to 8.0	6.0 to 12.0	7.5 to 15.0	10.0 to 20.0	12.0 to 24.0	14.0 to 28.0	16.0 to 32.0
		Noise NR	<20	<20	<20	26	31	35	38

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DOUBLE DEFLECTION GRILLE

Order Details

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Example – To order a Double Deflection grille with a standard flange, 600mm long (X nominal) by 200mm wide (Y nominal) in a standard RAL9016 finish.

CODE = DDFC-600-200

Note: Contact your sales branch or sales representative if your desired product cannot be ordered by using the above ordering criteria.

DDFC___-_____-_____-_____-_____-____

FINISH
NIL= Standard white RAL9016

DDFC WIDTH – NOMINAL
Y = NOMINAL DIMENSION
Stated in millimetres
(Rear vertical blades)

DDFC LENGTH - NOMINAL
X = NOMINAL DIMENSION
Stated in millimetres
(Front horizontal blades)

BLADE SPACING OPTIONS
NIL= Standard 25mm Blade Spacing
X = Double Spaced

FRAME OPTIONS
NIL= Standard frame
L = Large / Wide Frame

MODEL
DDFC = Double Deflection Grille
DDRC = D/Deflection Removable Core
DDCF = D/Deflection Curved Face
SD = Single Deflection

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