





ADA
AIR DIFFUSION AGENCIES

ALUMINIUM GRILLE CATALOGUE

Your one stop airconditioning shop!

www.airdiffusion.com.au

Welcome to Air Diffusion Agencies

A family owned Australian business

Air Diffusion Agencies is a renowned Australian manufacturer of state of the art accessories and technologies to provide you with a comprehensive range of components for your heating, ventilating, and/or air-conditioning (HVAC) system.

We are the leading Australian supplier of quality air conditioning equipment and refrigeration components to the industry, and a holder of several patented products. We offer a complete range of products including air diffusers, flexible duct, fittings, ductboard, sheetmetal, zoning equipment, spare parts and units.

We are a proudly 100% Australian family privately owned and managed company that is market driven by our valuable customers to design and provide innovative products that will meet your needs today, and in the future.

We really are your one stop air conditioning trade centre, put us to the test today.

YOUR ONE STOP AIRCONDITIONING TRADE CENTRE

Branches:

99-109 Frederick St Welland SA 5007
Ph: (08) 8116 3600 Fax: (08) 8116 3605

72-78 Willochra Rd Salisbury Plain SA 5109
Ph: (08) 8182 0777 Fax: (08) 8182 0705

15-19 Roxburgh Ave Lonsdale SA 5160
Ph: (08) 8307 2300 Fax: (08) 8307 2305

7/29 McCotter St Acacia Ridge QLD 4110
Ph: (07) 3714 8900 Fax: (07) 3714 8905

116 Winnellie Rd Winnellie Darwin NT 0821
Ph: (08) 8984 6800 Fax: (08) 8984 6805

All testing conducted by a Certified Laboratory in Australia.

Projects we are proud to be associated with

New Royal Adelaide Hospital

Adelaide Airport

SA Water, Adelaide

Casino, Adelaide

Stamford Grand, Adelaide

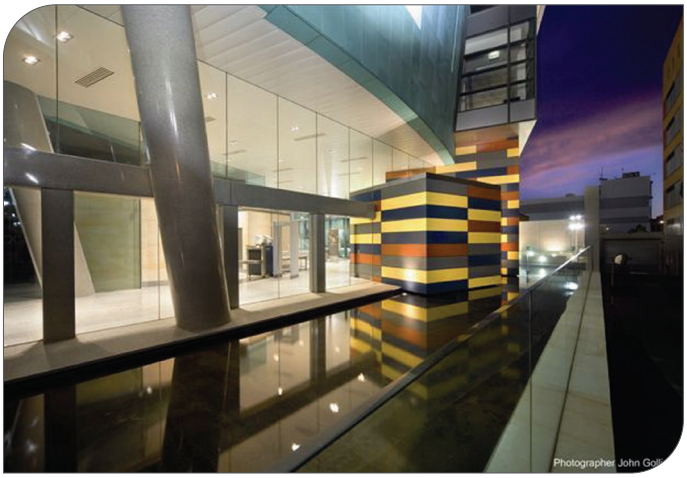
SAHMRI, Adelaide

Projects we are proud to be associated with

Adelaide Entertainment Centre

Adelaide Convention Centre

Adelaide Art Gallery



Roma Mitchell Commonwealth Law Courts, Adelaide

IKEA, Adelaide

Ashford Hospital, Adelaide

Projects which Air Diffusion have supplied all of, or part of, the following products:

● Air Diffusion ● Flexible Duct ● Outside Air Louvres ● Anti Vibration
● Door Grilles ● Volume Dampers ● Sheetmetal Duct ● Fire Dampers

PROJECTS IN SOUTH AUSTRALIA

ABC Radio Station Mt Gambier
Adelaide Airport
Adelaide Art Gallery
Adelaide Casino
Adelaide Convention Centre
Adelaide Entertainment Centre
Adelaide Desalination Project
Adelaide Film & Screen, Glenside
Adelaide High School
Adeliade Law Courts
Adelaide Remand Centre
ANZ Bank, Rundle Mall
Ashford Hospital
B.A.E Systems Edinburgh Park
B.H.P Olympic Dam
Beaumont Tiles
Berrenberg Factory
Berri Hospital
Big W, Gawler
Blue Scope Steel office block
Burnside Shopping Centre
Central Market Upgrade
Clare Hospital
Codan Facility
Coles Supermarket
Colonnades Shopping Centre
Detmold Medical
Dreamland, Noarlunga
DSTO
Education Building, DETE
Edward John Eyre High school Whyalla
Elizabeth Police Complex
Elsie Kindergarten
Embassy Apartments
Flinders Link
Flinders Medical Centre Upgrade
Flinders Uni Rural School Mt Gambier
Foodland, Littlehampton
Gawler Birth To Year 12 School
Gawler Sports Centre
Gepps Cross Sports Park, Super School
Glenelg Football Club
Glenmont Office Block
GP Plus, Gilles Plains
GP Plus, Marion
Hamstead Army Barracks
Hindmarsh Library
Horizon Apartments
Hurtle Square Apartments
IKEA
Islamic College West Croydon
Italian Club
Kadina Memorial High School
Kingston Community School
Leabrooke Retirement Village
Limestone Coast trade training facility
Lyell McEwin Hospital, Mental Health
Mannum Shopping Centre
Masters, Mt Gambier
Mawson Lakes Shopping Centre
McCracken Golf Club
McGuinness McDermott Project
Meningie Area School
Mid North Learning Centre, Pt Pirie
Mt Gambier Daycare facility

Mt Gambier Hospital
Mt Gambier Magistrates Court upgrade
Munno Para Shopping Centre
Myers Centre Heritage Building
Nairne Shopping Complex
New Royal Adelaide Hospital
North Adelaide Golf Course Function Room
North Pines Apartments, Colley St Glenelg
Northern Community Hospital
Office Tower, 70 Franklin Street
Origin Energy
Paradise Primary School
Peter Stevens Motor Cycles
Port Augusta Jail
Port Lincoln Airport, Terminal Building
Pt Adelaide Police Station
Pt Lincoln Consulting Rooms
RCG Building
Red Rooster
Reece Plumbing, Whyalla
Regency International Centre
Reynella East College
Ridley Centre, Wayville Show Grounds
Roma Mitchell Arts Education Centre
Roma Mitchell Commonwealth Law Courts
Royal Darwin Hospital Accident & Emergency
Rundle Mall Plaza Upgrade
SA Ambulance, Greenhill Road
SA Water, Berri
SA Water, Victoria Square
SA Water Berri pump station
SAHMRI (South Australian Health & Medical Research Institute)
Sammys Restaurant, Holdfast Shores
School of the Future
Sefton Plaza Shopping Centre
Sir Donald Bradman Room, Adelaide Oval
Southern Cross Care
St Andrews Hospital
St Anthony's Church redevelopment
St Columbia College
St George Greek Orthodox Church
St Martins Aged Care
Stamford Grand Hotel
Starplex Complex
State Administration Centre
State Bank (Santos House)
Stratco offices
Telstra Building, 30 Pirie Street
The Commonwealth Centre
The Heights Middle School
The Victoria Hotel, O'Halloran Hill
Torrens Parade Ground
Tower 8, Franklin Street
Toys 'R' Us, Noarlunga
Uni SA
Veterans Affairs Building
Western Community Hospital
Wirreanda High School
Women's and Children's Hospital
Woolworths, Gawler
Woolworths Liquor Land, Mile End
Worldpark

Projects which Air Diffusion have supplied all of, or part of, the following products:

● Air Diffusion ● Flexible Duct ● Outside Air Louvres ● Anti Vibration
● Door Grilles ● Volume Dampers ● Sheetmetal Duct ● Fire Dampers

PROJECTS IN NORTHERN TERRITORY

ABC Childcare Centres
Alawa Primary School
Alcan, Gove
Alice Springs Jail
Arid Water Testing Facility - Alice Springs
Aust. Fisheries Management Authority
Aust. Quarantine Inspection Service
Ayers Rock Resort
Ben Hammond Complex
Biodiesel Plant
Bradshaw Primary School, Alice Springs
Bradshaw Training Facility, Defence Department
Brewery Lane Apartment Complex
Bunnings, Palmerston
Carpentaria House
Chinatown
Civil Aviation Safety Authority
Coles, Casuarina
Darwin High School
Darwin International Airport
Darwin Meteorological Office
Darwin Turf Club
Durack Primary School
Energy House
Gateway Shopping Centre
Girraween Primary School
Gove Hospital
Hastings on Mindil (Apartment Complex)
Health House
Ihant Remote Housing Northern Territory
Kerry's Auto
Kormilda College
Kununurra Agriculture Regional Office
Kununurra Health Service
Kununurra High School
Lameroo Apartments
Larrakeyah Barracks
Maningrida Health Clinic
MGM Casino
Milikapiti Health Clinic
Mitchell Centre
Murray Neck Retail Centre, Alice Springs
Novotel Atrium
Nynkka Nyunyo, Tennant Creek
Palmerston Health Precinct
Palmerston Library
Palmerston Recreation Centre
Peter McAuley Centre Forensics Department
Pirlangimpi Health Centre
Powerwater, Mitchell Centre
RCG Building
Robertson Barracks, Aviation Facilities
Robertson Barracks, Tank Facilities
Royal Darwin Hospital Accident & Emergency
Skycity Casino
Stratco, Darwin
TIO Building
Western Precinct, Alice Springs
Wickham Point Gas Plant
Woolworths, Coolalinga
Woolworths, Darwin
Woolworths, Palmerston

PROJECTS IN QUEENSLAND

Alex Parade
Coolum Seaside
Kedron Park Hotel
Manta Apartments, Hervey Bay
Mooloolaba International Apartments
Quadrant
Red Rooster Store Beenleigh
Red Rooster Store Brisbane
Red Rooster Store Browns Plains
Royal Hotel
Seaforth
Shearwater
Southport Medical Centre
Space – The Residence
University of the Sunshine Coast

PROJECTS IN VICTORIA

Foxtel Carlton South
Foxtel Lincoln Square
Foxtel Sales Office
National Aust Bank Bendigo
National Aust Bank Carlton
Salesforce Australia Ltd
Toll Logistics
Tullamarine Airport Concourse
Vectus Call Centre

PROJECTS IN NEW SOUTH WALES

Baxta Pharmaceuticals
Chatswood Apartments
Foxtel Sales Office Clovelly
Quaterdeck Activity Centre, Homebush Bay
Raddison Hotel, Manly
Red Rooster Smithfield
St Martins Power
The Crest Apartments

PROJECTS IN WESTERN AUSTRALIA

Brigid Road Apartments
Jervois Bay Project
Reed Library Building
The Stable IGA Supermarket

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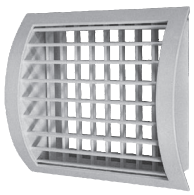
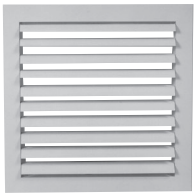
STYLE/MODEL	PRODUCT DESCRIPTION	PAGE NO.
 ADCFDD	**CURVED FACE DOUBLE DEFLECTION REGISTER** Features - Fixed core - Aluminium lightweight construction - Welded frame for strength - Frame curved to suit application - Front core blades follow curve of face - Concave and convex curved options available - Powder coated finish	
 ADCB	**CURVED BLADE CEILING REGISTER** Features - Removable lift out core (fixed core available on request) - Aluminium lightweight construction - Core adjustment allows varying blow pattern combinations - Blades adjustable to vary throw of air - Many core configurations available in 1,2,3 and 4 way blow - Powder coated finish	
 ADCBM	**CURVED BLADE REGISTER MULTIDIRECTIONAL** Features - Aluminium alternative to traditional plastic MDO's - Core adjustment allows varying blow patterns - Blades adjustable to vary air throw - Removable lift out cores for easy installation and cleaning - Aluminium lightweight construction - Powder coated finish	
 ADCPD	**CIRCULAR PLATE DIFFUSER** Features - Removable core via positive centre screw - Aluminium lightweight construction - Adjustment of centre plate allows varying air patterns - Powder coated finish	
 ADSCD	**SPUN CIRCULAR DIFFUSER** Features - Removable core - Aluminium lightweight construction - Removable core via positive centre screw - Suitable for heating, cooling & ventilation - Adjustment of centre cone allows varying air patterns - Powder coated finish	

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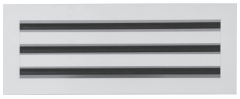
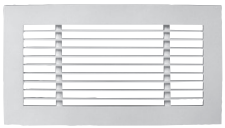
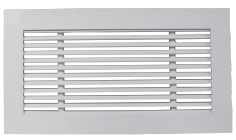
STYLE/MODEL	PRODUCT DESCRIPTION	PAGE NO.
 ADLS	**LINEAR SLOT DIFFUSER** Features - Fixed core (removable core available on request) - Aluminium lightweight construction - Aerodynamically designed to ensure maximum airflow at minimum noise level - Long linears supplied in sections to appear as continuous - Powder coated finish	33
 ADBG	**BAR GRILLE** Features - Fixed core (removable core available on request) - Aluminium lightweight construction - Blade profile 25 x 3mm aluminium flat bar at 18mm centres - Wider sizes supplied in sections to appear as continuous - Ideal for supply or exhaust applications - Optional adjustable vertical back blades can be fitted to rear - Powder coated finish	36
 ADCFBG	**CURVED FACE BAR GRILLE** Features - Fixed core - Aluminium lightweight construction - Curved frame and blades to suit application - Concave and convex styles available - Optional adjustable vertical back blades can be fitted to rear - Powder coated finish	37
 ADSL	**SLIM LINE - 15º DEFLECTION BLADE** Features - Fixed core (removable core available on request) - Aluminium lightweight construction - Sections can be butted together for continuous installation - Ideal for supply or exhaust application - Modern looking, ideal for wall grilles, kickboards and counters - Blades at 12.5mm centres - Powder coated finish	40
 ADFG	**FLOOR GRILLE** Features - 25 x 6mm flat aluminium bar blades - Blades at 16mm centres as standard, alternative blade spacings available on request - Manufactured to suit weight requirements - Aluminium lightweight construction - Powder coated finish	43

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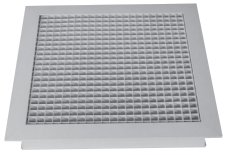
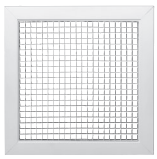
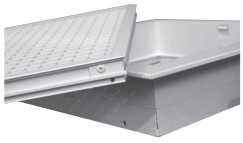
STYLE/MODEL	PRODUCT DESCRIPTION	PAGE NO.
 ADJD	**JET DIFFUSER** Features - Circular cone diffuser - Aluminium, lightweight construction - Interchangeable between jet and diffused position - Ideal for high ceilings providing maximum throw - Optional mounting available for banks of diffusers (more than one) - Supplied with locking nuts to facilitate fixing to existing duct - Powder coated finish	45
 ADJDN	**JET DIFFUSER WITH FLANGED MOUNTING SLEEVE** Features - Circular cone diffuser - Interchangeable between jet and diffused position - Ideal for high ceilings providing maximum throw - Mounted in flanged sleeve - Supplied with locking nuts to facilitate fixing to existing duct - Powder coated finish	46
 ADLE	**EGGCRATE GRILLE LAY-IN** Features - Lay-in removable core or fixed core - Aluminium lightweight construction - Ideal for exhaust and return air applications - Constructed of 12mm cubed lattice core in extruded frame - Powder coated finish	49
 ADLE FRC	**EGGCRATE GRILLE LAY-IN CONCEALED CORE FRAME** Features - Framed lay-in removable core - 12mm cubed lattice/eggcrate core in concealed frame - Ideal for exhaust and return air applications - Aluminium lightweight construction - Powder coated finish	50
 ADLE COC	**EGGCRATE GRILLE CLIP OUT CORE** Features - Clip out core via face of grille - Aluminium lightweight extrusion - 12mm cubed lattice/eggcrate core in extruded frame - Ideal for exhaust and return air applications - Powder coated finish	51

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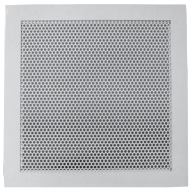
STYLE/MODEL	PRODUCT DESCRIPTION	PAGE NO.
 ADHEF	**HINGED EGGCRATE GRILLE WITH FILTER** Features - Removable core with slide panel filter - Aluminium lightweight construction - 12mm cubed lattice/eggcrate core - Filter (supplied as standard) removable for easy cleaning - Suitable for ceiling or wall mounting - Powder coated finish	54
 ADHC FC	**HALF CHEVRON FIXED CORE** Features - Wall mounted (low level) return air grille with fixed core - Aluminium lightweight construction - 45º Blades set at 26mm centres - 60% (approx) free area - Powder coated finish	56
 ADHC RC	**HALF CHEVRON REMOVABLE CORE** Features - Wall mounted (low level) return air grille - Aluminium, lightweight construction - Removable core allows easy installation and access behind grille - Suitable for return air & exhaust air applications - Powder coated finish	57
 ADHC RCF	**HALF CHEVRON REMOVABLE CORE WITH FILTER** Features - Wall mounted (low level) return air grille with filter - Aluminium, lightweight construction - Removable slide filters fitted - Removable core allows easy installation and access to filters - Suitable for return air & exhaust air applications - Powder coated finish	58
 ADPD	**PERFORATED DIFFUSER** Features - 50% free area - Designed to fit any ceiling suspension - Aluminium lightweight construction - Perforated insert is easily removed for maintenance and cleaning - Custom security variations available - Powder coated finish	61

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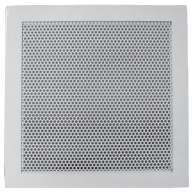
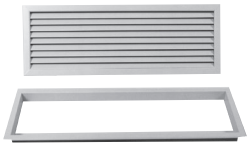
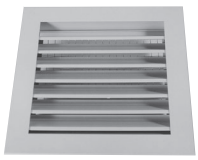
STYLE/MODEL	PRODUCT DESCRIPTION	PAGE NO.
 ADPD40	**PERFORATED DIFFUSER** Features - 40% free area - Secure type grille for return air applications - Designed to fit any ceiling suspension - Reinforcing flat bars fixed to inside neck for additional security - Custom security variations available - Powder coated finish	62
 ADSPD	**SECURE PLATE DIFFUSER** Features - Strong stainless steel 1.5mm thick plate construction - Resistant to tampering in secure applications - Approved for prison projects - Custom steel and powder coated options available - Stainless steel finish	63
 ADDG	**DOOR GRILLE** Features - Full chevron blade - Aluminium lightweight construction - Telescopic adjustment to fit doors & partitions 29 to 48mm wide - Neat and finished appearance on both sides - Natural anodised finish	64
 ADUDG	**DOOR GRILLE** Features - Under-door style - 32 x 3mm Flat bar blades - All aluminium lightweight construction - Available in a powder coated or natural anodised finish	66
 ADOAL25	**OUTSIDE AIR LOUVRE** Features - Aluminium lightweight construction - Vermin proof mesh attached to rear - Rain trap at back of blade to minimise water ingress - 25mm flanges - Natural anodised finish	67

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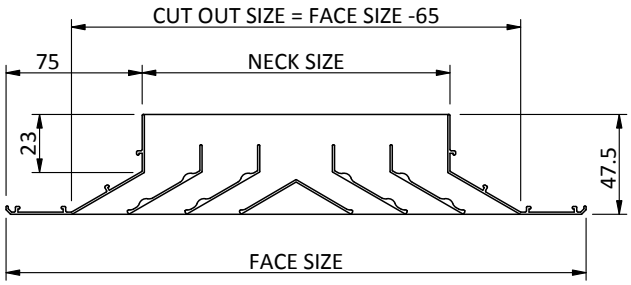
CEILING DIFFUSER LOUVRED FACE
Model ADCD

ADCD

DESIGN DETAILS (mm)



APPLICATIONS

Louvre faced ceiling diffusers are the industry standard supply air grille.

Designed to deliver large volumes of air in a stable horizontal air pattern that is close to the ceiling, and draft free.

In lay-in applications the diffuser is placed into a T-bar ceiling grid without any need to alter the T-bar construction, it simply replaces a tile.

This extremely versatile frame style is also suitable for surface mounting.

STOCK SIZES (mm)

Actual Neck/Face	Nominal Neck/Face	Cut out size
145 / 295	150 / 300	235 x 235
220 / 370	225 / 375	310 x 310
295 / 445	300 / 450	385 x 385
370 / 520	375 / 525	460 x 460
445 / 595	450 / 600	535 x 535

FEATURES

Manufactured from aluminium extrusion that is lightweight and resistant to rust and corrosion.

The removable core makes them easy to install, clean & access dampers located behind diffusers.

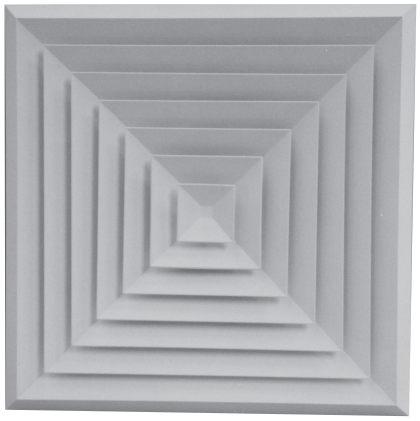
Triangular blanking plates can be fitted behind the louvre to obtain a varying distribution pattern whilst maintaining a uniform face appearance.

Standard finish powder coat satin white.

1, 2, 3 or 4 way blow in a wide selection of square and rectangular neck sizes available see page 3.

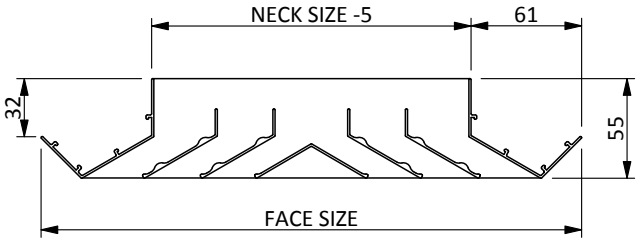
See engineering performance data and a quick selection chart on pages 4 & 5.

CEILING DIFFUSER BEVELLED FACE
Model ADBCD



ADBCD

DESIGN DETAILS (mm)



APPLICATIONS

The bevelled faced ceiling diffuser has a smartly styled drop border frame that is suitable for all surface mounting applications.

They provide excelled performance where cooling is required in areas of high heat and high humidity, but versatile to also suit heating & cooling applications in lower temperatures.

STOCK SIZES (mm)

Actual Neck/Face	Nominal Neck/Face	Cut out size
145 / 267	150 / 270	150 x 150
220 / 342	225 / 345	225 x 225
295 / 417	300 / 420	300 x 300
370 / 492	375 / 495	375 x 375
445 / 567	450 / 570	450 x 450

FEATURES

Manufactured from aluminium extrusion that is lightweight and resistant to rust and corrosion.

The bevelled frame is corner staked and welded for increased strength.

The core is removable via a positive centre screw making them easy to install, clean & access dampers located behind diffusers (if fitted).

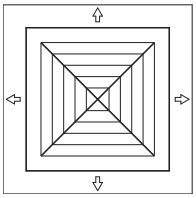
Triangular blanking plates can be fitted behind the louvre to obtain a varying distribution pattern whilst maintaining a uniform face appearance.

Standard finish powder coat satin white.

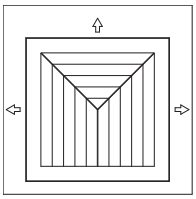
See pages 3 & 4 for core patterns and engineering performance data.

CEILING DIFFUSER CORE PATTERNS
Model ADCD

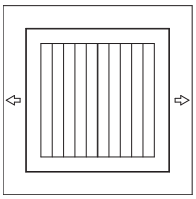
SQUARE DIFFUSERS



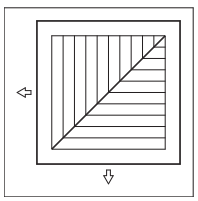
4 way (S4W)



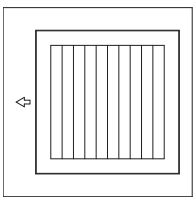
3 way (S3W)



2 way (S2W)

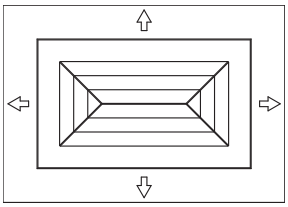


2 way corner (S2WC)

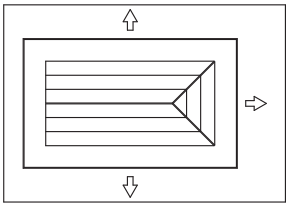


1 way (S1W)

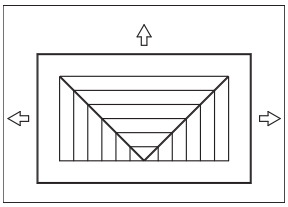
RECTANGULAR DIFFUSERS



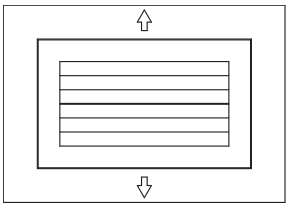
4 way (R4W)



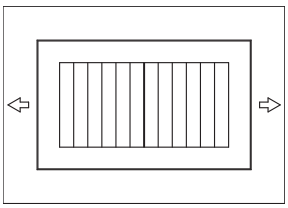
3 way long blade (R3WL)



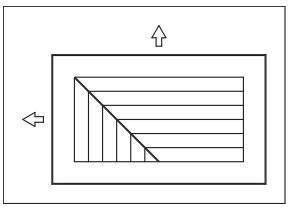
3 way short blade (R3WS)



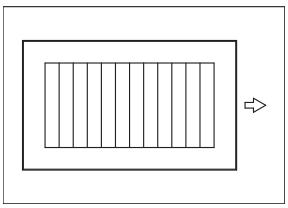
2 way opposite long blade (R2WL)



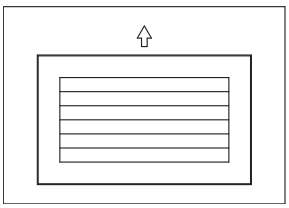
2 way opposite short blade (R2WS)



Two way corner (R2WC)



1 way (R1WS)



1 way (1WL)

CEILING DIFFUSER LOUVRED FACE
Model ADCD

Air Flow (L/s)	Static Pressure (Pa)	Throw (m) to terminal Velocity		Core (m/s)	Noise Rating (NR)
		0.5 m/s	0.25 m/s		
150/300 4-Way ADCD					
51	21	1.7	2.6	0.9	11
76	39	2.2	3.1	1.4	20
109	73	3.3	4.6	2.0	29
154	135	3.7	5.3	2.8	40
189	175	4.5	*	3.5	45
215	246	5.2	*	4.0	49
240	305	*	*	4.4	53
262	370	*	*	4.9	56
225/375 4-Way ADCD					
75	8	1.8	2.5	0.9	10
95	14	2.2	3.1	1.1	14
135	27	2.9	4.1	1.6	22
168	38	3.5	4.9	2.0	29
194	52	3.8	5.2	2.3	35
236	70	4.5	5.7	2.8	39
261	90	5.0	*	3.1	43
307	112	*	*	3.6	48
300/450 4-Way ADCD					
75	5	1.3	2.1	0.6	8
108	7	1.7	2.4	0.9	10
154	12	2.6	3.8	1.3	18
219	20	3.3	4.5	1.8	27
269	29	4.5	*	2.2	33
311	40	*	*	2.6	39
383	58	*	*	3.2	46
375/525 4-Way ADCD					
108	4	3.0	4.0	0.7	10
168	6	4.1	5.1	1.0	13
235	12	4.8	6.0	1.4	24
292	18	5.2	*	1.8	31
339	22	*	*	2.0	36
400	29	*	*	2.4	40
450/595 4-Way ADCD					
160	3	2.3	3.2	0.8	10
207	4	3.0	4.2	1.0	16
250	6	3.6	5.0	1.2	21
349	11	5.0	*	1.6	31
504	23	*	*	2.4	39
590	32	*	*	2.8	45
710	44	*	*	3.3	51

Diffuser ratings are based on mounting height being 2.8 meters.

Throw range is defined by the minimum and maximum horizontal distances at right angles to the side of the diffuser.

Note: Table indicates throw for 4-way pattern.

To estimate throw for the same airflows for other patterns, apply the approach multiplier to the 4-way throw figures.

1-way x 2
2-way x 1.4
3-way x 1.5

CEILING DIFFUSER LOUVRED FACE
Model ADCD

QUICK SELECTION CHART

Air Quantity	Diffuser Neck Sizing (mm)				
	Throw (m)				
	1.0 - 1.3	1.3 - 1.8	1.8 - 2.2	2.2 - 3.0	3.0 - 4.0
55 - 70	225 x 225	150 x 150	150 x 150		
75 - 120	300 x 300	225 x 225	225 x 225	225 x 225	
125 - 150		300 x 300	300 x 300	300 x 300	
155 - 200			450 x 450	450 x 450	300 x 300
205 - 250				450 x 450	375 x 375
255 - 300					450 x 450
305 - 350					450 x 450
355 - 450					

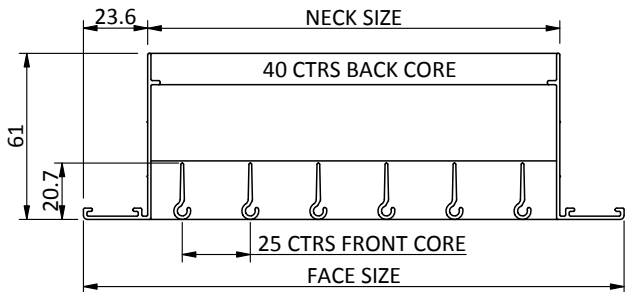
Guide Only

The above sizes are based on a 4 way throw
3 way = Air quantity x 0.75
2 way = Air quantity x 0.50

DOUBLE DEFLECTION WALL REGISTER
Model ADDD

ADDD

DESIGN DETAILS (mm)



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 (ADDD) are recommended for supply air applications.

Single deflections (ADSD) are recommended for exhaust and return air applications.

High velocity double deflections (ADHVDD) 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

DOUBLE DEFLECTION WALL REGISTER
Model ADDD

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 Metres								
	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 Metres								

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.

DOUBLE DEFLECTION WALL REGISTER
Model ADDD

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	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 – Litres per Second (l/s)
Throw (m) is to a terminal velocity of 0.25m/s
Static Pressure – Pascals (Pa)
Core Velocity – Metres per Second (m/s)

DOUBLE DEFLECTION WALL REGISTER
Model ADDD

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 – Litres per Second (l/s)
Throw (m) is to a terminal velocity of 0.25m/s
Static Pressure – Pascals (Pa)
Core Velocity – Metres per Second (m/s)

DOUBLE DEFLECTION WALL REGISTER
Model ADDD

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

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

DOUBLE DEFLECTION WALL REGISTER
Model ADDD

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

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

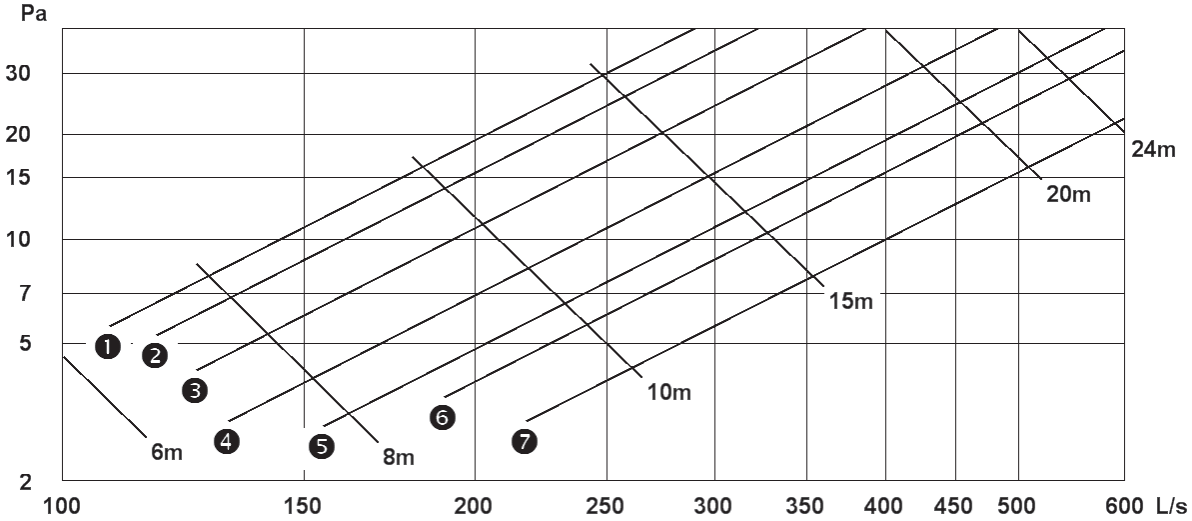
DOUBLE DEFLECTION WALL REGISTER
Model ADDD

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

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

DOUBLE DEFLECTION WALL REGISTER
Model ADDD

Double Deflection Wall Registers - 0° Deflection

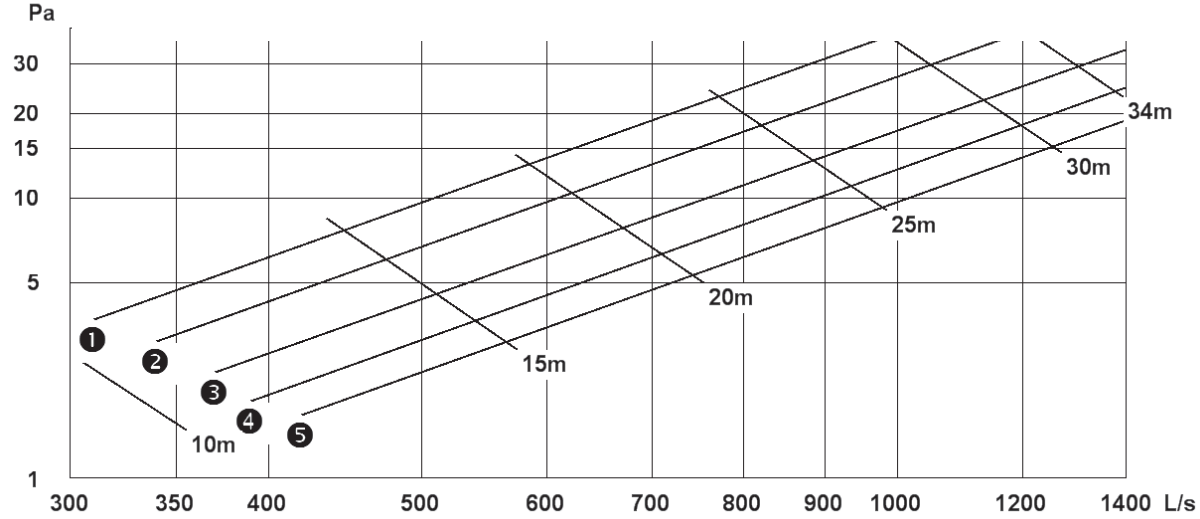


Throw (m) is to a terminal velocity of 0.25m/s.

Register Size

❶	❷	❸	❹	❺	❻	❼
300x150 450x100	250x200, 350x150, 500x100	300x200, 400x150, 600x100	350x200, 500x150, 750x100	450x200, 600x150, 900x100	400x250, 500x200, 750x150	500x250, 600x200, 900x150

Double Deflection Wall Registers - 0° Deflection



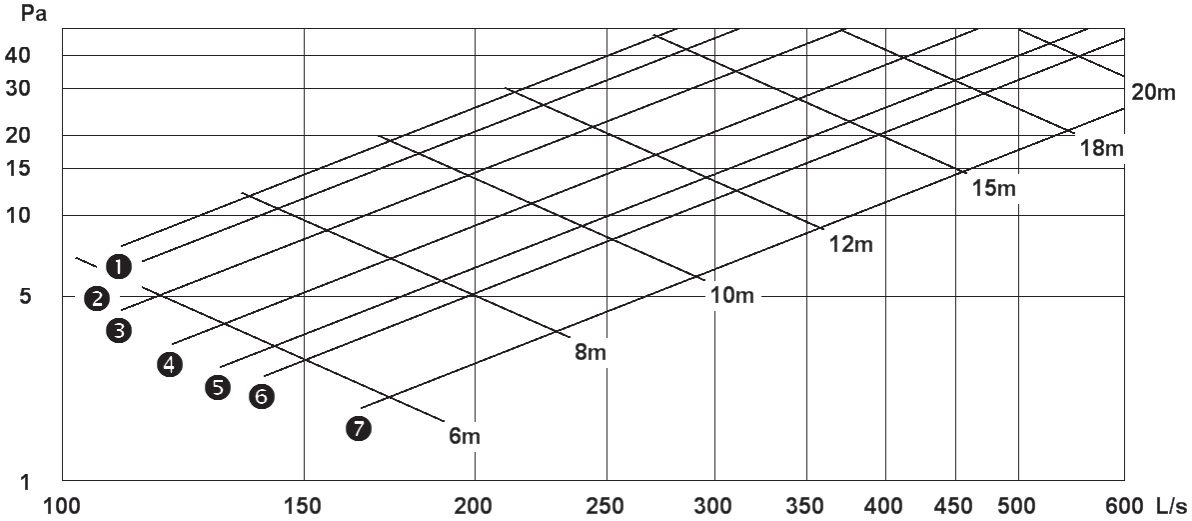
Throw (m) is to a terminal velocity of 0.25m/s.

Register Size

❶	❷	❸	❹	❺
500x300 600x250, 750x200	600x300, 750x250, 900x200	750x300, 900x250, 1200x200	1050x250, 750x350, 900x300	900x350, 1000x300, 1200x250

DOUBLE DEFLECTION WALL REGISTER
Model ADDD

Double Deflection Wall Registers - 22.5° Deflection

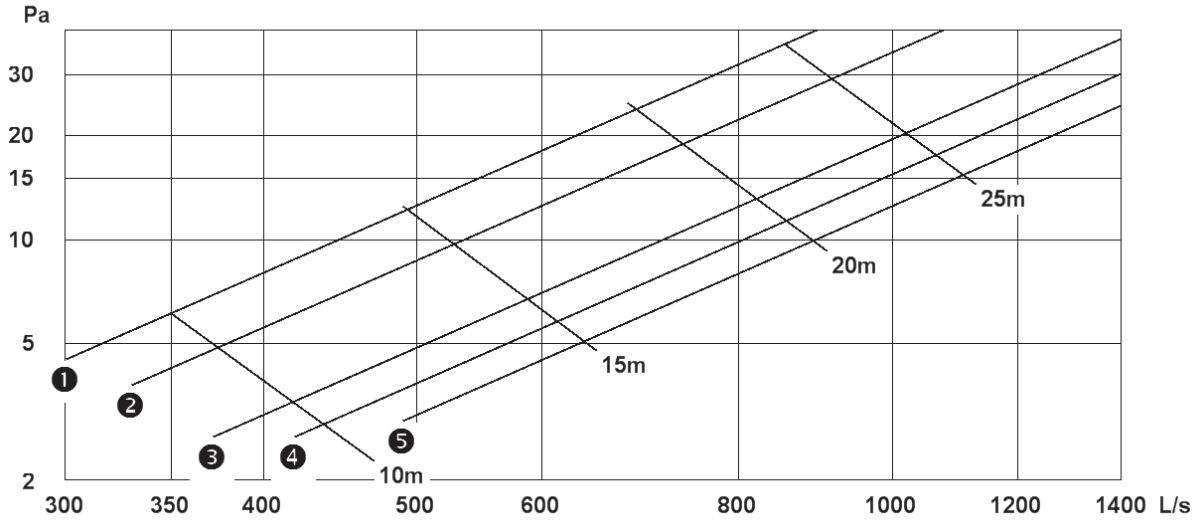


Throw (m) is to a terminal velocity of 0.25m/s.

Register Size

❶	❷	❸	❹	❺	❻	❼
300x150 450x100	250x200, 350x150, 500x100	300x200, 400x150, 600x100	350x200, 500x150, 750x100	450x200, 600x150, 900x100	400x250, 500x200, 750x150	500x250, 600x200, 900x150

Double Deflection Wall Registers - 22.5° Deflection



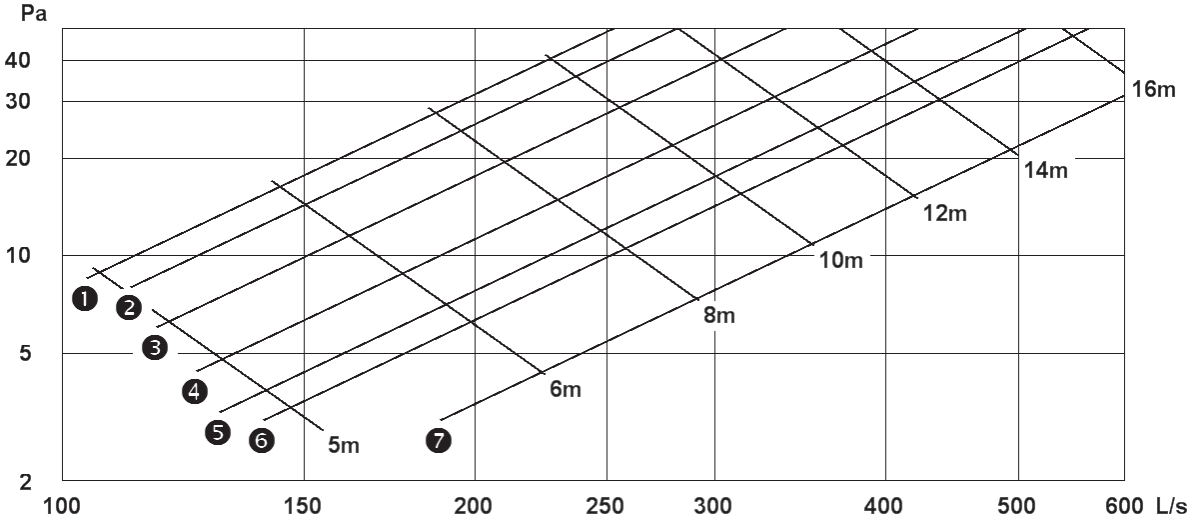
Throw (m) is to a terminal velocity of 0.25m/s.

Register Size

❶	❷	❸	❹	❺
750x200, 600x250, 500x300	900x200, 750x250, 600x300	1200x200, 900x250, 750x300	1050x250, 900x300, 750x350	1200x250, 1000x300, 900x350

DOUBLE DEFLECTION WALL REGISTER
Model ADDD

Double Deflection Wall Registers - 45° Deflection

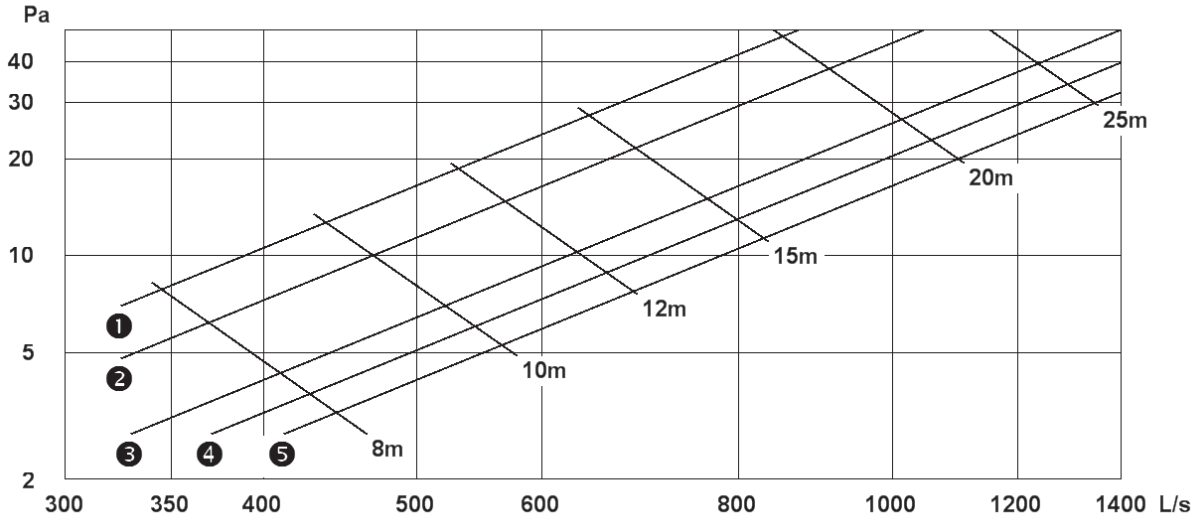


Throw (m) is to a terminal velocity of 0.25m/s

Register Size

❶	❷	❸	❹	❺	❻	❼
300x150 450x100	250x200, 350x150, 500x100	300x200, 400x150, 600x100	350x200, 500x150, 750x100	450x200, 600x150, 900x100	400x250, 500x200, 750x150	500x250, 600x200, 900x150

Double Deflection Wall Registers - 45° Deflection



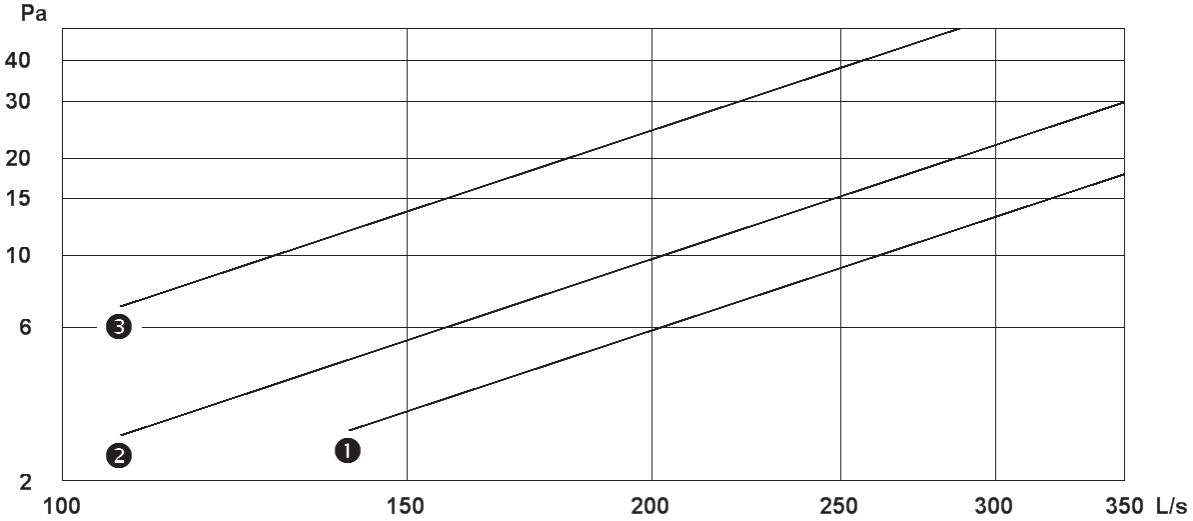
Throw (m) is to a terminal velocity of 0.25m/s

Register Size

❶	❷	❸	❹	❺
500x300, 600x250, 750x200	600x300, 750x250, 900x200	750x300, 900x250, 1200x200	750x350, 900x300, 1050x250	900x350, 1000x300, 1200x250

DOUBLE DEFLECTION WALL REGISTER
Model ADDD

Double Deflection Wall Registers - 45° Deflection



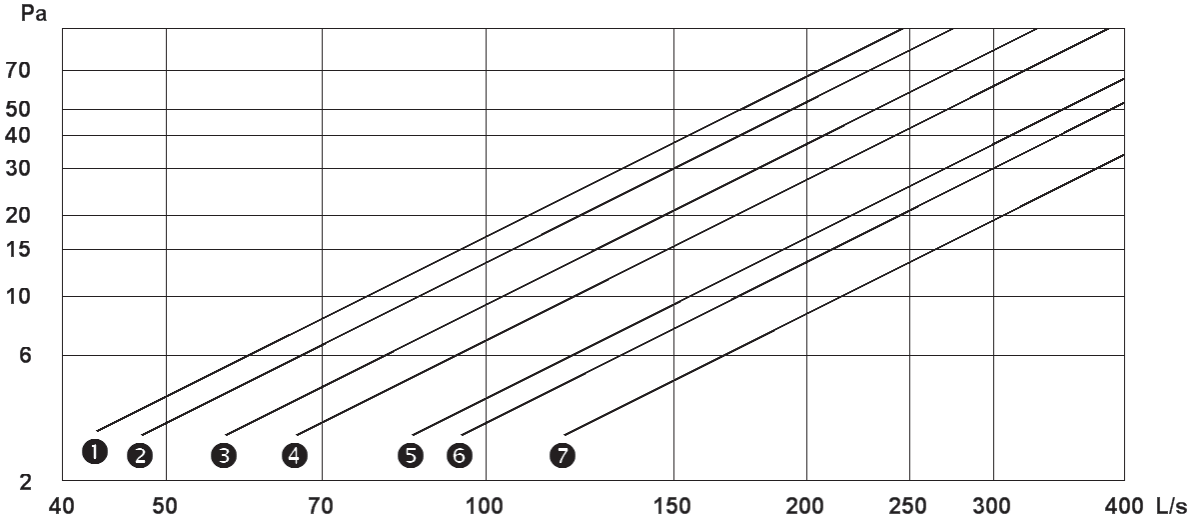
❶ Deflection 0° and Angle of Discharge 0°

❷ Deflection 22° and Angle of Discharge 36°

❸ Deflection 45° and Angle of Discharge 80°

DOUBLE DEFLECTION WALL REGISTER
Model ADDD

Double Deflection Wall Registers

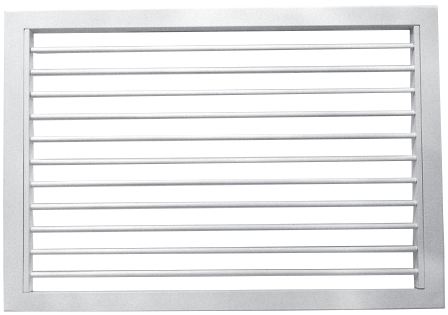


Throw (m) is to a terminal velocity of 0.25m/s

Register Size

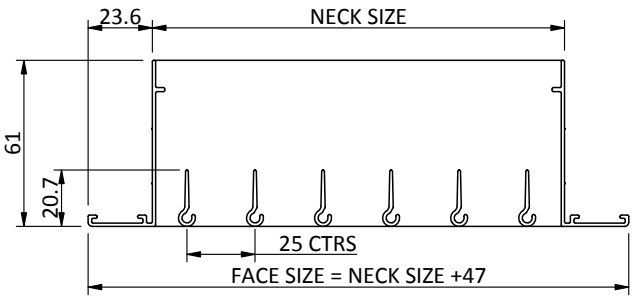
❶	❷	❸	❹	❺	❻	❼
300x150 450x100	250x200, 350x150, 500x100	300x200, 400x150, 600x100	350x200, 500x150, 750x100	450x200, 600x150, 900x100	400x250, 500x200, 750x150	500x250, 600x200, 900x150

SINGLE DEFLECTION WALL REGISTER
Model ADSD



ADSD

DESIGN DETAILS (mm)



APPLICATIONS

Single deflection all-purpose wall registers feature one core with individually adjustable horizontal blades.

Recommended for high volume air delivery applications to special purpose systems, most commonly return air and/or exhaust.

Opposed blade dampers are available to assist balancing the airflow in supply air applications.

FEATURES

Manufactured using all aluminium extrusions.

Blades are assembled with 25mm centres.

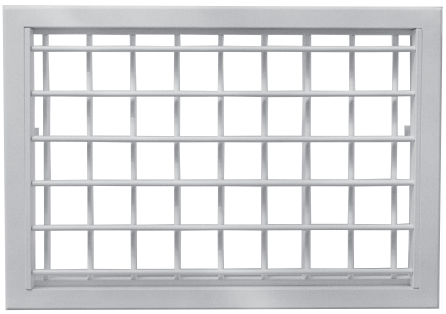
Support mullions are fitted if width exceeds 700mm.

Supplied with a 'clip in' removable core as standard, fixed core available on request.

Made to order to suit your application.

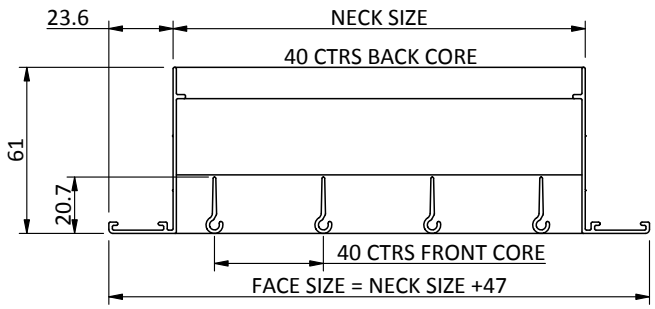
Standard finish powder coat satin white.

HIGH VELOCITY DOUBLE DEFLECTION REGISTER
Model ADHVDD



ADHVDD

DESIGN DETAILS (mm)



APPLICATIONS

High velocity wall registers feature two cores with adjustable horizontal and vertical blades at 40mm centres (standard ADDD has 25mm centres).

Designed for applications of high volume air delivery to special purpose systems, most commonly evaporative air conditioning systems.

It is recommended to fix the cores in the frame, after installation, to prevent them from coming loose when the unit is in operation.

FEATURES

Removable core is supplied as standard.

Support mullions are fitted when blade lengths exceed 600mm.

Cores are assembled with 40mm blade centres.

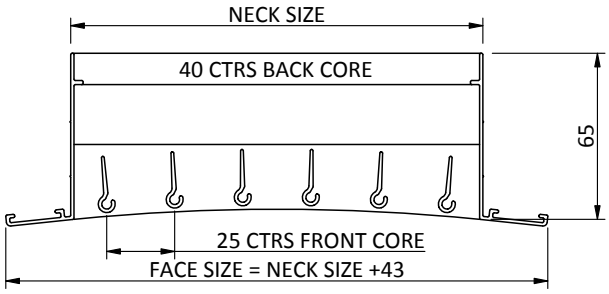
Aluminium lightweight construction.

Standard finish powder coat satin white.

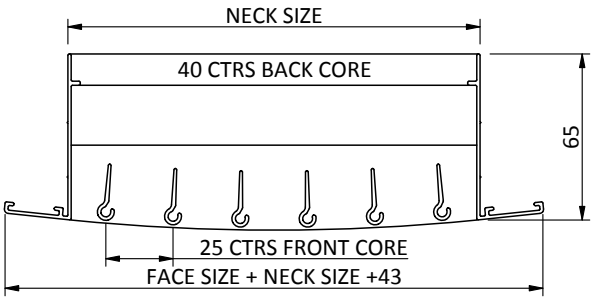
CURVED FACE DOUBLE DEFECTION REGISTER
Model ADCFDD

ADCFDD

DESIGN DETAILS (mm)



ADCFDD (to suit concave curve)



ADCFDD (to suit convex curve)

APPLICATIONS

Truly unique, curved face registers are designed for direct mounting to horizontal runs of circular or oval duct work for either supply, return or exhaust applications.

Registers needs to be sized so the height of the grille is at least 100mm less than the diameter of the duct to which it is fitted, allowing sufficient room for the grille frame.

FEATURES

Two cores with adjustable horizontal front blades at 25mm centres and back blades at 40mm centres.

Extruded Aluminium lightweight construction.

Manufactured to suit both concave or convex curves.

Details of duct diameters are required at time of order to establish curvature requirements

Standard finish powder coat satin white.

CURVED FACE DOUBLE DEFECTION REGISTER
Model ADCFDD

0° Deflection

Nominal Size	1050 x 250 900 x 300 750 x 350			900 x 350 1000 x 300 1200 x 250		
Core m/s	0.27 sqm			0.30 sqm		
	L/s	Pa	Throw(m)	L/s	Pa	Throw(m)
1.0	250	1	7	300	1	7
1.5	375	2	10	450	2	11
2.0	500	4	13	600	4	14
2.5	625	7	16	750	7	18
3.0	750	10	20	900	10	21
3.5	875	13	23	1050	14	25
4.0	1000	17	26	1200	18	28
5.0	1250	27	33	1500	28	35

22.5° Deflection

Nominal Size	500 x 300 600 x 250 750 x 200			600 x 300 750 x 250 900 x 200			750 x 300 900 x 250 1200 x 200			750 x 350 900 x 300 1050 x 250			900 x 350 1000 x 300 1200 x 250		
Core m/s	0.15 sqm			0.18 sqm			0.24 sqm			0.27 sqm			0.30 sqm		
	L/s	Pa	Throw(m)	L/s	Pa	Throw(m)	L/s	Pa	Throw(m)	L/s	Pa	Throw(m)	L/s	Pa	Throw(m)
1.0	150	1	5	180	1	5	240	1	7	270	1	7	300	1	7
1.5	225	3	7	270	3	8	360	3	10	405	3	10	450	2	11
2.0	300	5	9	360	5	10	480	6	13	540	5	13	600	4	14
2.5	375	7	11	450	7	13	600	9	16	675	7	16	750	7	17
3.0	450	10	14	540	10	15	720	12	19	810	11	20	900	10	20
3.5	525	14	16	630	14	18	840	17	22	945	15	23	1050	14	24
4.0	600	18	18	720	18	21	960	22	25	1080	19	26	1200	18	27
5.0	750	29	22	900	28	26	1200	35	31	1350	30	32	1500	28	34

Throw (m) is to a terminal velocity of 0.25m/s.

CURVED FACE DOUBLE DEFECTION REGISTER
Model ADCFDD

45° Deflection

Nominal Size	300 x 150 450 x 100			250 x 200 350 x 150 500 x 100			300 x 200 400 x 150 600 x 100			350 x 200 500 x 150 750 x 100		
Core m/s	0.045 sqm			0.050 sqm			0.060 sqm			0.075 sqm		
	L/s	Pa	Throw(m)	L/s	Pa	Throw(m)	L/s	Pa	Throw(m)	L/s	Pa	Throw(m)
1.0	45	2	2	50	1	2	60	1	2	75	2	3
1.5	68	4	3	75	3	3	90	3	4	113	4	4
2.0	90	6	4	100	6	4	120	6	5	150	6	6
2.5	113	10	5	125	9	5	150	9	6	188	10	7
3.0	135	15	6	150	13	6	180	13	7	225	14	9
3.5	158	20	7	175	18	8	210	17	9	263	20	10
4.0	180	26	8	200	24	9	240	22	10	300	26	12
5.0	225	41	10	250	37	11	300	35	13	375	40	15

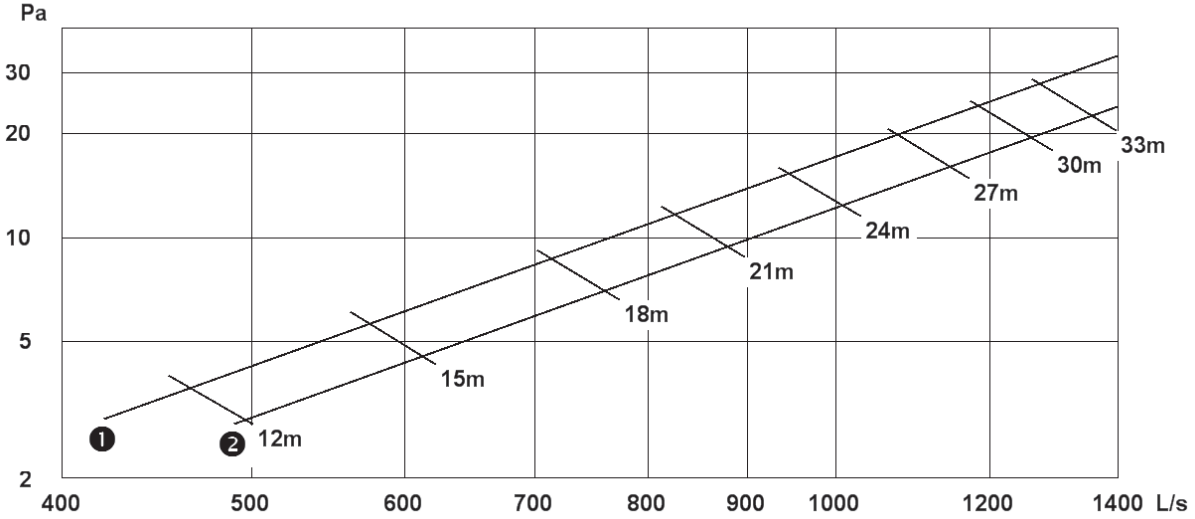
Nominal Size	450 x 200 600 x 150 900 x 100			400 x 250 500 x 200 750 x 150			500 x 250 600 x 200 900 x 150			500 x 300 600 x 250 750 x 200		
Core m/s	0.090 sqm			0.100 sqm			0.120 sqm			0.15 sqm		
	L/s	Pa	Throw(m)	L/s	Pa	Throw(m)	L/s	Pa	Throw(m)	L/s	Pa	Throw(m)
1.0	90	2	3	100	1	3	120	1	3	150	1	3
1.5	135	4	5	150	3	5	180	2	5	225	3	5
2.0	180	6	6	200	6	7	240	5	7	300	6	7
2.5	225	10	8	250	9	8	300	9	8	375	9	9
3.0	270	15	10	300	13	10	360	12	10	450	13	11
3.5	315	20	11	350	17	12	420	17	12	525	17	12
4.0	360	26	13	400	22	13	480	22	13	600	23	14
5.0	450	41	16	500	35	17	600	34	17	750	36	18

Nominal Size	600 x 300 750 x 250 900 x 200			750 x 300 900 x 250 1200 x 200			750 x 350 900 x 300 1000 x 250			900 x 350 1000 x 300 1200 x 250		
Core m/s	0.18 sqm			0.24 sqm			0.27 sqm			0.30 sqm		
	L/s	Pa	Throw(m)	L/s	Pa	Throw(m)	L/s	Pa	Throw(m)	L/s	Pa	Throw(m)
1.0	180	1	4	240	2	5	270	2	5	300	1	5
1.5	270	3	6	360	4	7	405	4	8	450	3	8
2.0	360	5	8	480	7	10	540	6	10	600	5	11
2.5	450	8	10	600	11	12	675	10	13	750	8	14
3.0	540	11	12	720	16	15	810	14	16	900	12	16
3.5	630	16	14	840	22	17	945	19	18	1050	16	19
4.0	720	20	16	960	28	20	1080	25	21	1200	21	22
5.0	900	32	21	1200	44	25	1350	39	26	1500	33	27

Throw (m) is to a terminal velocity of 0.25m/s. Throw to a terminal velocity of 0.5m/s is approximately 70% of the above.

CURVED FACE DOUBLE DEFECTION REGISTER
Model ADCFDD

Curved Face Register - 0° Deflection

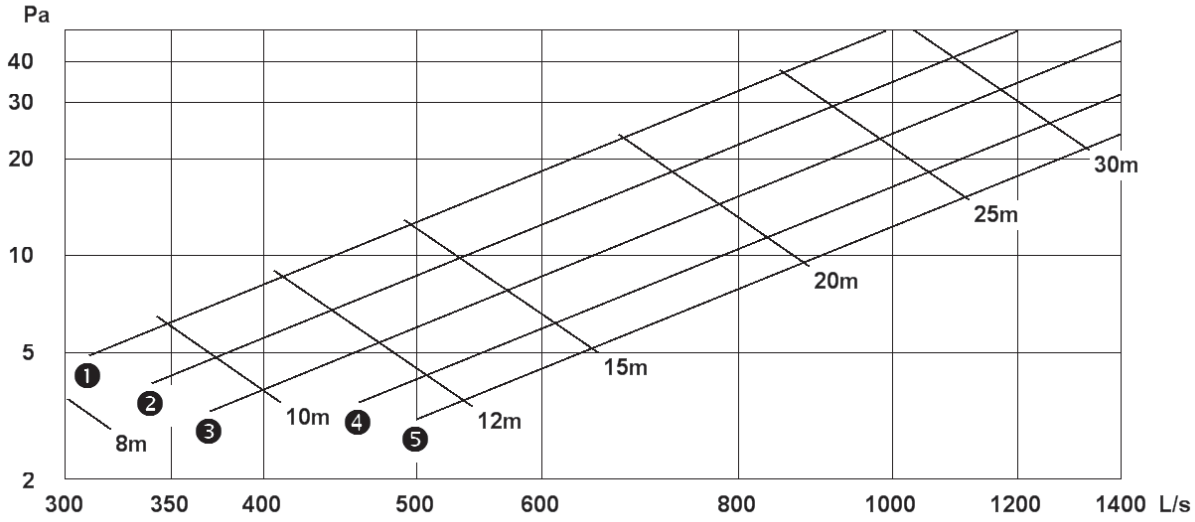


Throw (m) is to a terminal velocity of 0.25m/s.

Register Size

❶ 1050x250, 900x300, 750x350 ❷ 900x350, 1000x300, 1200x250

Curved Face Register - 22.5° Deflection



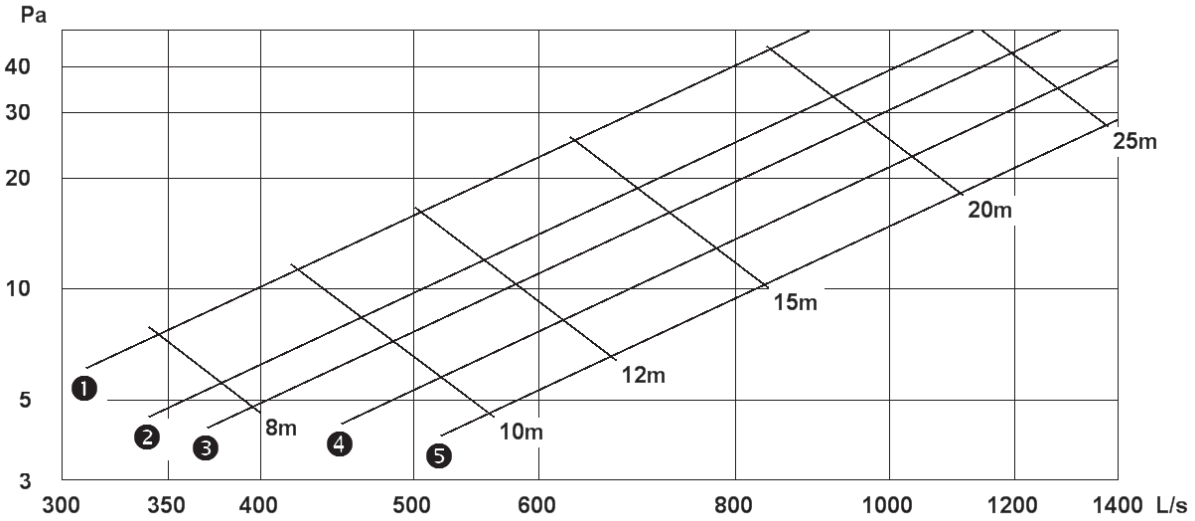
Throw (m) is to a terminal velocity of 0.25m/s.

Register Size

❶	❷	❸	❹	❺
500x300, 600x250, 750x200	600x300, 750x250, 900x200	750x300, 900x250, 1200x200	750x350, 900x300, 1050x250	900x350, 1000x300, 1200x250

CURVED FACE DOUBLE DEFECTION REGISTER
Model ADCFDD

Curved Face Register - 45° Deflection

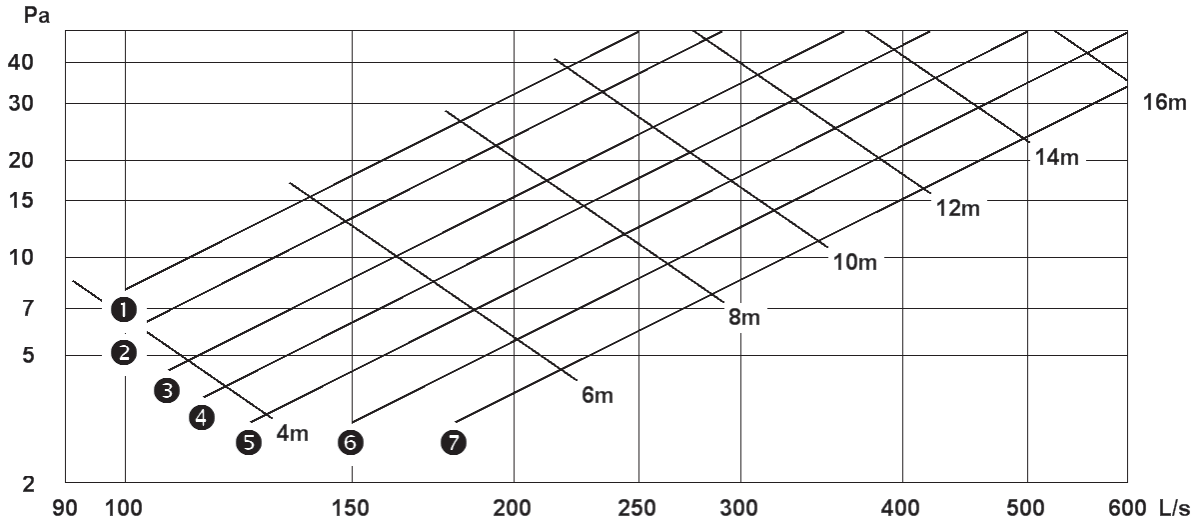


Throw (m) is to a terminal velocity of 0.25m/s.

Register Size

❶	❷	❸	❹	❺
500x300, 600x250, 750x200	600x300, 750x250, 900x200	750x300, 900x250, 1200x200	750x350, 900x300, 1000x250	900x350, 1000x300, 1200x250

Curved Face Register - 45° Deflection

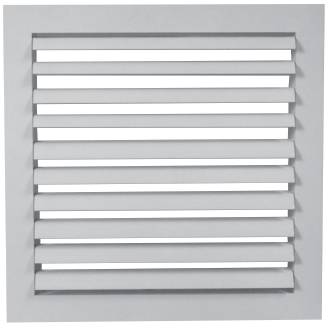


Throw (m) is to a terminal velocity of 0.25m/s.

Register Size

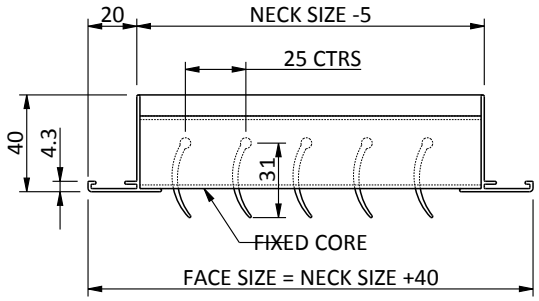
❶	❷	❸	❹	❺	❻	❼
300x150 450x100	250x200, 350x150, 500x100	300x200, 400x150, 600x100	350x200, 500x150, 750x100	450x200, 600x150, 900x100	400x250, 500x200, 750x150	500x250, 600x200, 900x150

CURVED BLADE CEILING REGISTER
Model ADCB



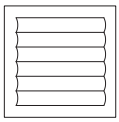
ADCB

DESIGN DETAILS (mm)



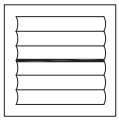
CORE PATTERNS

Curved Blade Types



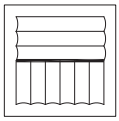
1 Way Blow

1 Way Blow
Fixed Core ADCB-1F
Removable Core ADCB-1R
*Both types feature adjustable blades



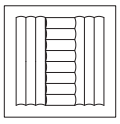
2 Way Blow
(Opposing)

2 Way Opposing Blow
Fixed Core ADCB-O2F
Removable Core ADCB-O2R
*Both types feature adjustable blades



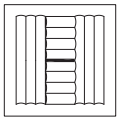
2 Way Blow
(Corner)

2 Way Corner Blow
Fixed Core ADCB-C2F
Removable Core ADCB-C2R
*Both types feature adjustable blades



3 Way Blow

3 Way Blow
Fixed Core ADCB-1F
Removable Core ADCB-1R
*Both types feature adjustable blades



4 Way Blow
(Fixed Core)

4 Way Blow
Fixed Core ADCB-4F
Removable Core ADCB-4R
*Both types feature adjustable blades

APPLICATIONS

The attractive curved blade ceiling register is ideal for ceiling applications requiring positive directional control.

Suitable for use in heating, cooling and evaporative air conditioning systems they are a popular alternative to the plastic equivalent.

Blades are fully adjustable to allow the vent to be closed off avoiding draughts when the unit is not in use (e.g. seasonal evaporative air conditioning systems).

FEATURES

All extruded aluminium construction.

Adjustable blades allow for regular modifications to the direction of airflow into the room as required.

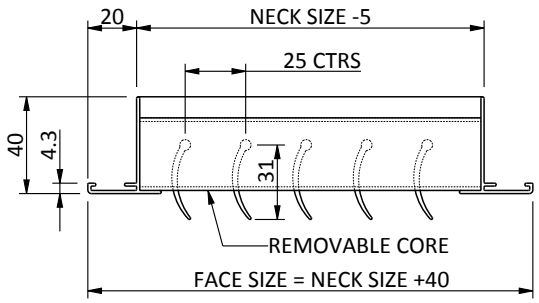
Removable core and fixed core models available.

Standard finish powder coat satin white.

CURVED BLADE MULTI ADJUSTABLE CEILING REGISTER
Model ADCBM

ADCBM

DESIGN DETAILS (mm)



STOCK SIZES (mm)

Code	Nominal Neck Size
CBM4R3030	300 x 300
CBM4R3535	350 x 350
CBM4R4040	400 x 400
CBM4R4545	450 x 450
CBM4R50	500 x 500
CBM4R55	550 x 550
CBM4R59	595 x 595 (FACE)
CBM4R60	600 x 600

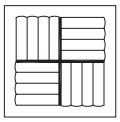
APPLICATIONS

The multi directional curved blade design is a popular alternative to the plastic equivalent in domestic applications. An ideal register for ceiling applications requiring positive directional control.

Suitable for use in heating, cooling and evaporative air conditioning systems.

All blades are fully adjustable to allow the vent to be closed off, avoiding draughts when the unit is not in use (e.g. seasonal evaporative air conditioning systems).

CORE PATTERN



4 Way Blow
(Removable Core)

4 Way Blow
Fixed Core ADCBM-4F
Removable Core ADCBM-4R
*Both types feature adjustable blades

FEATURES

All extruded aluminium construction.

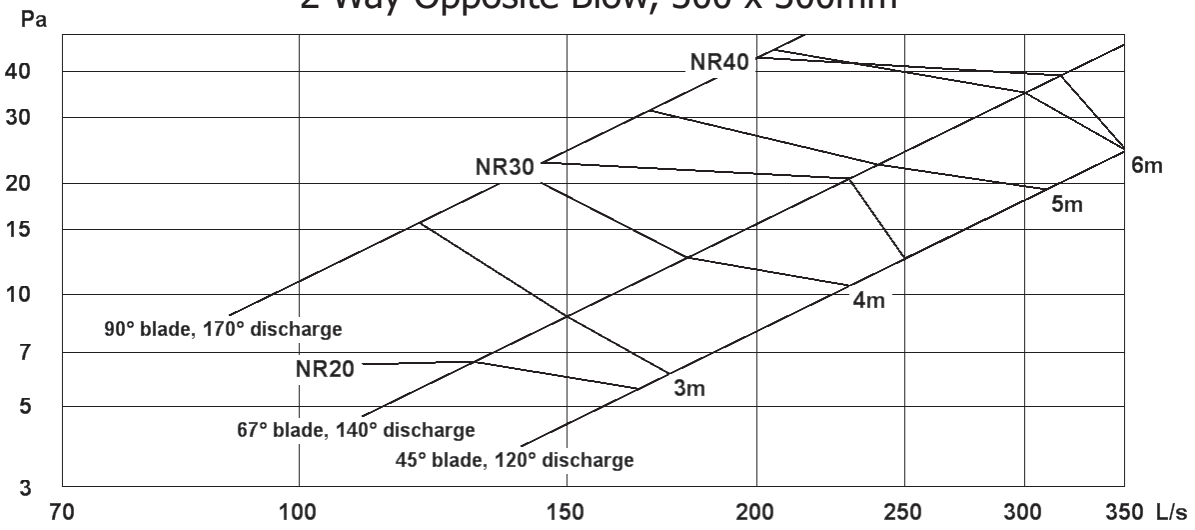
Adjustable blades allow for repeated modifications to the direction of airflow into the room as required.

Easy clean removable cores.

Standard finish powder coat satin white.

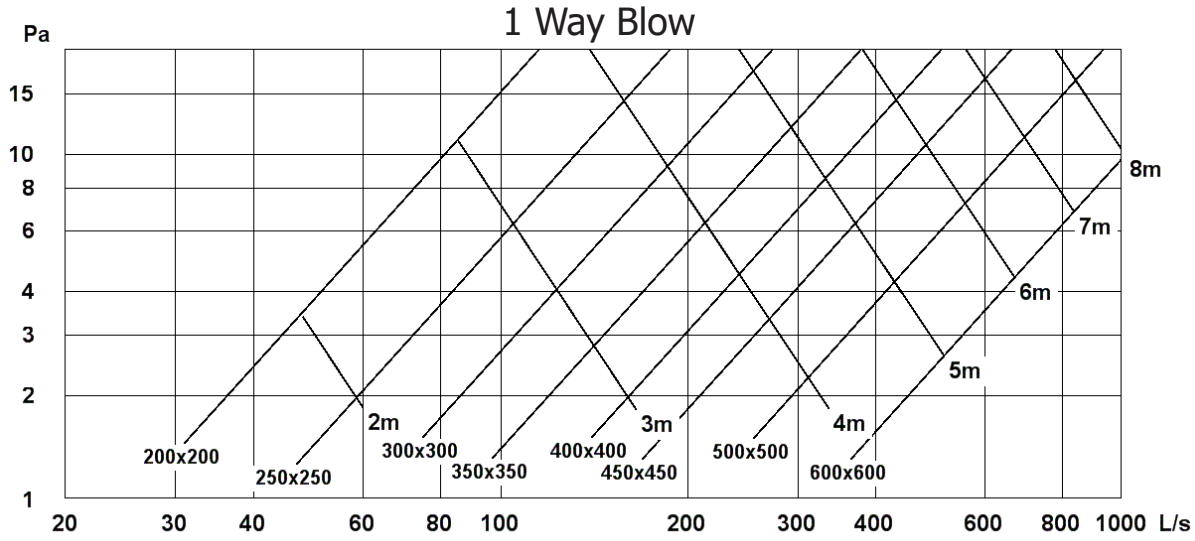
CURVED BLADE CEILING REGISTER
Model ADCB / ADCBM

2 Way Opposite Blow, 300 x 300mm



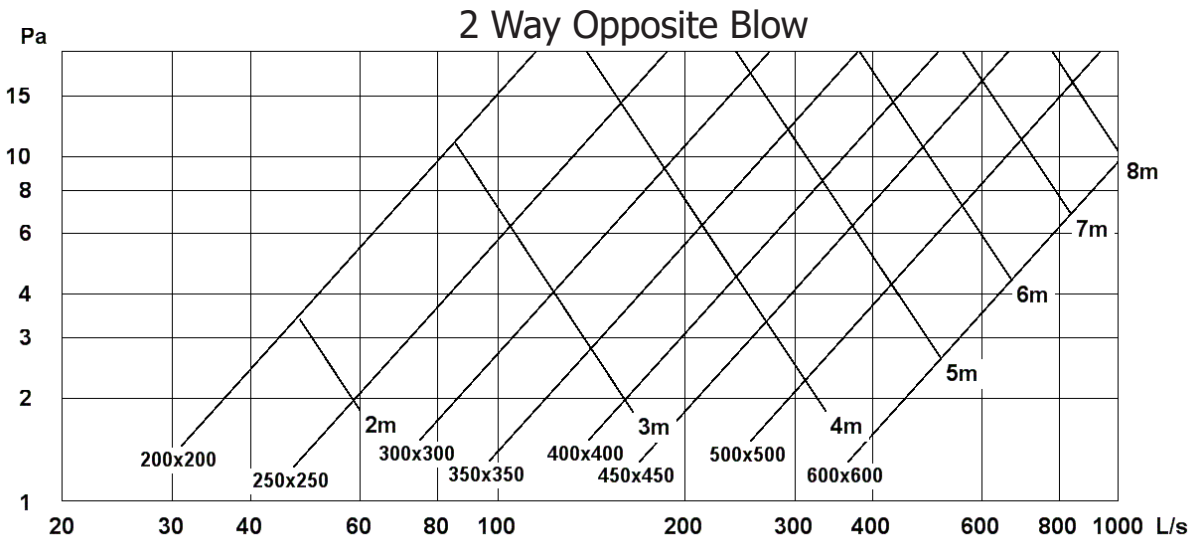
Throw (m) is to a terminal velocity of 0.25m/s.
Throw to a terminal velocity of 0.5m/s is approximately 70% of the above.

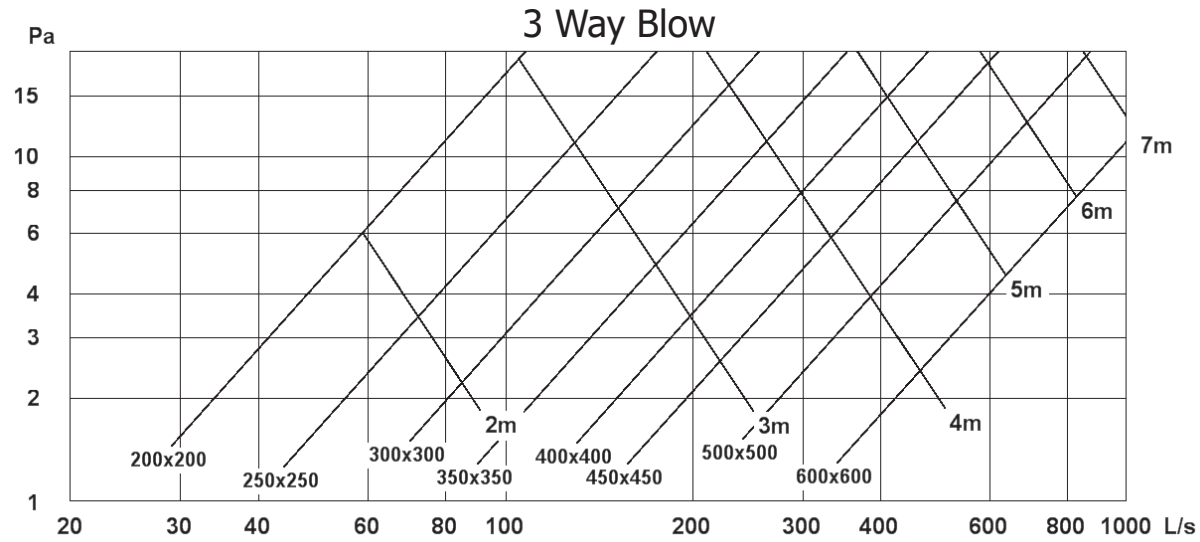
1 Way Blow

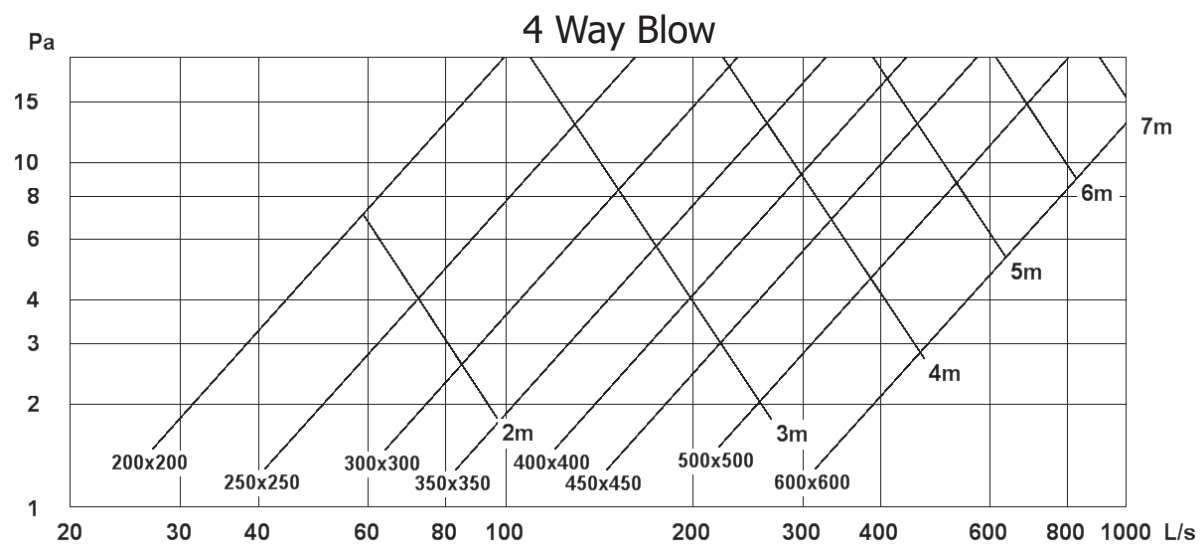


Throw (m) is to a terminal velocity of 0.25m/s.
Throw to a terminal velocity of 0.5m/s is approximately 70% of the above.

CURVED BLADE CEILING REGISTER
Model ADCB / ADCBM





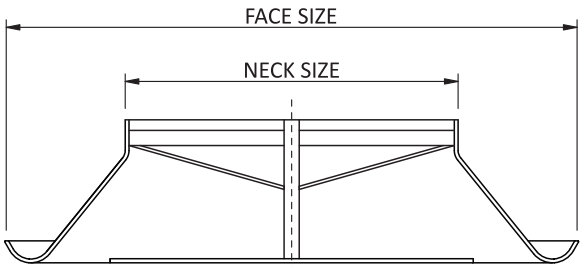


Throw (m) is to a terminal velocity of 0.25m/s.

CIRCULAR PLATE DIFFUSER
Model ADCPD

ADCPD

DESIGN DETAILS (mm)



APPLICATIONS

An architecturally designed supply air diffuser used most commonly in cooling applications. The adjustable centre plate allows for varying horizontal air distribution.

Circular diffusers are suitable for commercial and domestic applications.

STOCK SIZES (mm)

Neck	Plate	Face	Cut Out Size	A
150^{o}	200^{o}	310^{o}	260^{o}	72
200^{o}	240^{o}	378^{o}	318^{o}	75
250^{o}	320^{o}	477^{o}	417^{o}	95
300^{o}	410^{o}	591^{o}	531^{o}	110
400^{o}	455^{o}	703^{o}	643^{o}	135

FEATURES

Manufactured from spun aluminium material making them lightweight and resistant to rust and corrosion.

Removable core via position centre screw.

Adjustment of centre cone allows varying throw patterns.

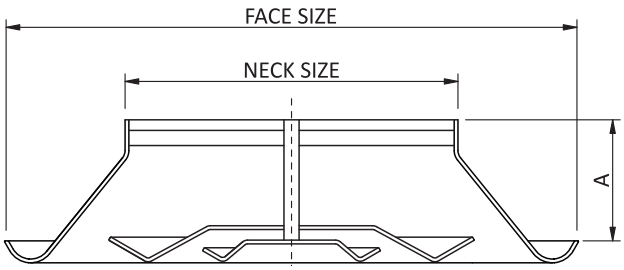
Spigot size on boxes to be 5mm > than neck sizes.

Standard finish powder coat satin white.

SPUN CIRCULAR DIFFUSER
Model ADSCD

ADSCD

DESIGN DETAILS (mm)



APPLICATIONS

A stylish adjustable supply air pattern diffuser suitable for heating and cooling systems in both commercial and domestic applications.

For heating applications, a vertical air distribution is achieved by adjusting the centre cone to the up position.

By adjusting the centre cone to the down position, a horizontal air distribution is achieved to suit cooling applications.

Popular in standard ceilings and exposed duct applications.

STOCK SIZES (mm)

Neck	Face	Cut Out Size	A
150^{o}	310^{o}	260^{o}	72
200^{o}	378^{o}	318^{o}	75
250^{o}	477^{o}	417^{o}	95
300^{o}	591^{o}	531^{o}	110
400^{o}	703^{o}	643^{o}	135

FEATURES

Manufactured from spun aluminium material making them lightweight and resistant to rust and corrosion.

Removable core via position centre screw.

Adjustment of centre cone allows varying throw patterns.

Spigot size on boxes to be 5mm > than neck sizes.

Standard finish powder coat satin white.

SPUN CIRCULAR DIFFUSER
Model ADSCD

150/310mm Aluminium Circular Diffuser											
		Throw (m) to terminal vel.		SOUND POWER LEVEL, dB re 1pW Octave Band Centre Frequency, Hz							
L/s	Pa	0.5m/s	0.25m/s	125	250	500	1000	2000	4000	NR	dB(A)
100	12	0.9	1.3	46	39	35	33	29	26	23	29
130	20	1.2	1.6	51	44	41	40	36	31	30	35
170	34	1.5	2.1	57	51	49	49	46	42	39	43
200	47	1.7	2.4	64	58	56	56	53	49	46	50
250	74	2.1	2.9	75	70	68	67	65	62	57	62

200/378mm Aluminium Circular Diffuser											
		Throw (m) to terminal vel.		SOUND POWER LEVEL, dB re 1pW Octave Band Centre Frequency, Hz							
L/s	Pa	0.5m/s	0.25m/s	125	250	500	1000	2000	4000	NR	dB(A)
127	14	0.7	1.0	46	39	35	33	29	26	23	29
177	22	0.9	1.3	51	44	41	40	36	31	30	35
212	32	1.1	1.5	54	48	46	46	43	39	36	40
247	39	1.3	1.8	57	51	49	49	46	42	39	43
276	48	1.4	2.0	59	54	52	51	49	46	42	46

250/477mm Aluminium Circular Diffuser											
		Throw (m) to terminal vel.		SOUND POWER LEVEL, dB re 1pW Octave Band Centre Frequency, Hz							
L/s	Pa	0.5m/s	0.25m/s	125	250	500	1000	2000	4000	NR	dB(A)
170	10	1.1	1.5	48	38	33	32	28	26	22	28
191	13	1.2	1.7	51	41	37	36	32	27	26	31
254	23	1.7	2.3	57	46	43	44	41	33	34	38
283	28	1.8	2.5	59	48	46	46	44	37	37	41
339	40	2.2	3.1	63	52	50	50	48	42	41	45

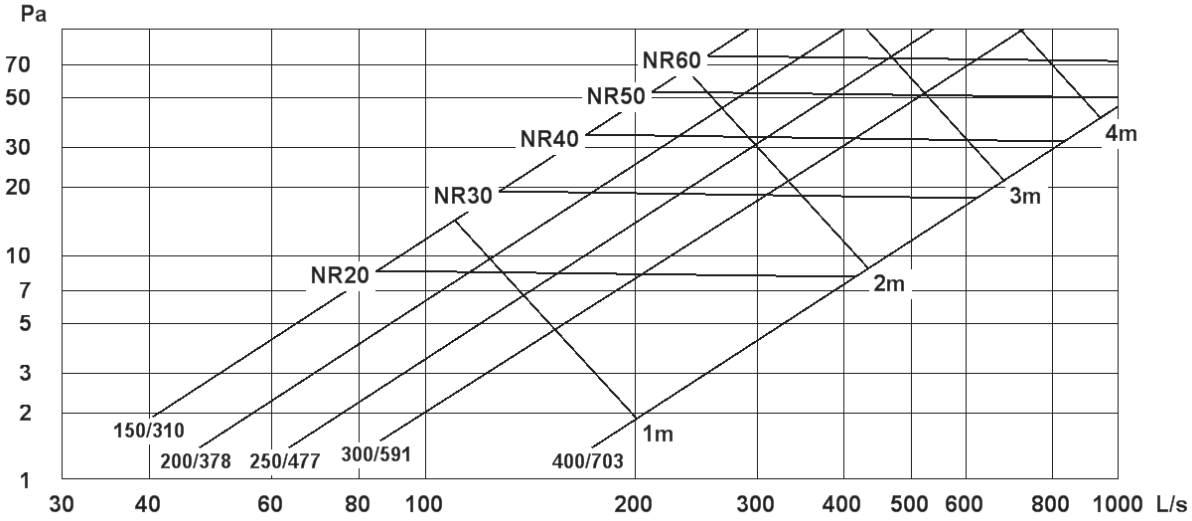
300/591mm Aluminium Circular Diffuser											
		Throw (m) to terminal vel.		SOUND POWER LEVEL, dB re 1pW Octave Band Centre Frequency, Hz							
L/s	Pa	0.5m/s	0.25m/s	125	250	500	1000	2000	4000	NR	dB(A)
177	7	1.1	1.5	53	39	32	29	26	26	24	29
205	12	1.3	1.8	56	42	35	33	31	28	27	32
262	17	1.6	2.2	60	46	41	39	34	28	32	37
346	27	2.1	2.9	64	51	47	45	40	33	37	42
396	38	2.4	3.4	66	55	51	50	45	38	40	45

400/703mm Aluminium Circular Diffuser											
		Throw (m) to terminal vel.		SOUND POWER LEVEL, dB re 1pW Octave Band Centre Frequency, Hz							
L/s	Pa	0.5m/s	0.25m/s	125	250	500	1000	2000	4000	NR	dB(A)
470	14	2.0	2.8	53	45	41	39	35	32	29	35
655	22	2.8	3.9	57	50	48	46	42	37	36	41
784	32	3.4	4.7	61	54	52	52	49	44	42	46
914	39	4.0	5.6	63	57	55	55	52	48	45	49
1021	48	4.4	6.2	65	60	58	57	55	52	48	52

1. "Pa" is the in-duct static pressure one diameter upstream of diffuser spigot.
2. NR and dB(A) calculated with assumed 10dB deducts for room effect. (Where the room is very large, applicable deducts may be more.)

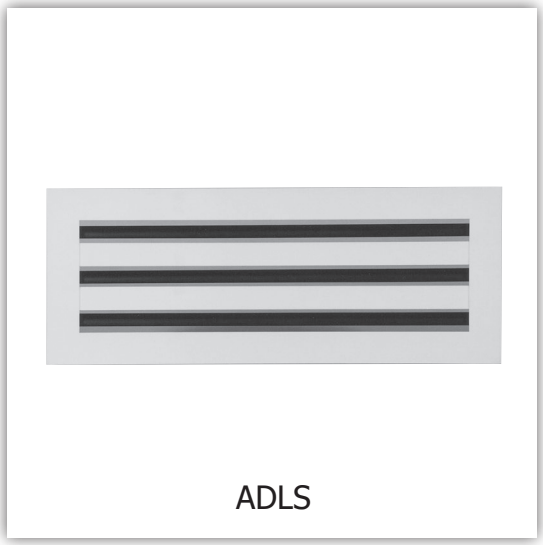
SPUN CIRCULAR DIFFUSER
Model ADSCD

Circular Supply Register



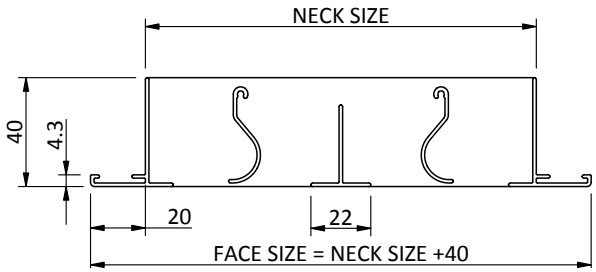
Throw (m) is to a terminal velocity of 0.5m/s.
Throw to a terminal velocity of 0.25m/s is approximately 40% of the above.

LINEAR SLOT DIFFUSER
Model ADLS



ADLS

DESIGN DETAILS (mm)



Slot Widths

Type	Exact Neck (mm)
1 Slot	44
2 Slot	82
3 Slot	126
4 Slot	169
5 Slot	211
6 Slot	250
7 Slot	292
8 Slot	333
9 Slot	375
10 Slot	417
11 Slot	459
12 Slot	501

APPLICATIONS

The contemporary Linear Slot diffuser is becoming increasingly popular in both commercial and domestic applications.

Their ability to handle large air volumes makes the diffusers suitable for any building requiring large air changes. Linear Slot Diffusers can be used in any indoors application requiring long continuous lengths of air supply, and are excellent for providing air curtains.

Normally installed in walls and ceilings, they are popular with architects due to their unobtrusive appearance.

FEATURES

Aluminium lightweight construction, will not rust or corrode.

Adjustable throw pattern.

Aerodynamically designed to ensure maximum air flow at minimum noise level.

Standard finish powder coat satin white.

Long linears are supplied in sections with joining strips to appear continuous.

LINEAR SLOT DIFFUSER
Model ADLS

1 Slot				2 Slot				3 Slot			
L/s	Pa	t.50	t.25	L/s	Pa	t.50	t.25	L/s	Pa	t.50	t.25
110	17	1.9	4.5	190	13	3.2	6.0	270	12	2.9	5.9
178	46	3.6	6.2	310	35	4.3	7.1	433	30	4.7	7.7
234	79	4.3	6.9	411	61	5.1	7.9	570	52	5.6	8.6
285	117	4.8	7.4	500	90	5.8	8.6	691	77	6.1	9.1
330	157	5.1	7.7	580	121	6.2	9.0	800	103	6.5	9.5

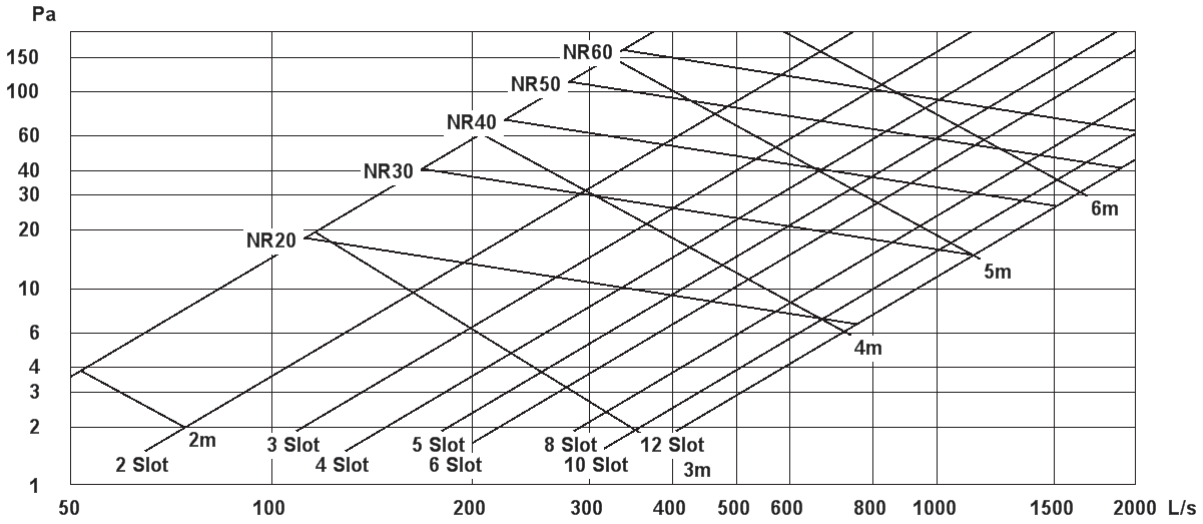
4 Slot			
L/s	Pa	t.50	t.25
330	10	3.7	6.6
536	26	4.7	7.8
709	45	5.3	8.4
862	67	5.9	8.9
1000	90	6.3	9.5

NOTE:
t.5 - Throw (m) to terminal velocity of 0.5m/s.
t.25 - Throw (m) to terminal velocity of 0.25m/s
NR - Noise Rating calculated with assumed 10dB deducts for room absorption.
Pa - Static Pressure, Pascals.

Note: Diffusers tested isothermally, with horizontal projection.

LINEAR SLOT DIFFUSER
Model ADLS

Linear Slot Diffuser



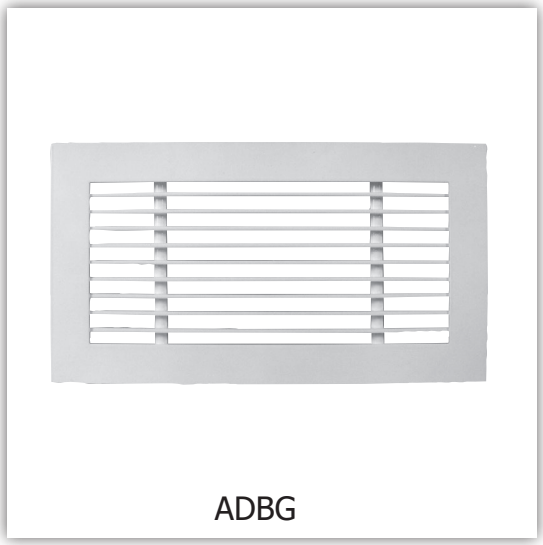
Throw (m) is to a terminal velocity of 0.5m/s.
Throw to a terminal velocity of 0.25m/s is approximately 40% of the above.

Note: Calculations and testing based on 1135 x 20mm Slot Diffuser

Legend

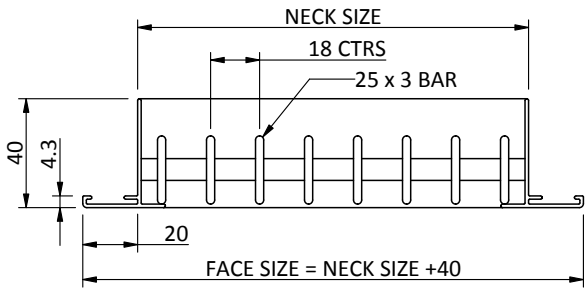
Pa	Pascals
L/s	Litres per second
NR	Noise Rating

BAR GRILLE
Model ADBG



ADBG

DESIGN DETAILS (mm)



APPLICATIONS

Bar grilles are an all purpose grille suitable for supply, return and exhaust air applications in heating, cooling and ventilation systems.

A versiltile grille that can be easily fitted in walls, bulkheads, kickboards, floors and ceilings.

A popular choice for continuous line applications.

FEATURES

Constructed of lightweight aluminium extrusion resistant to rust and corrosion.

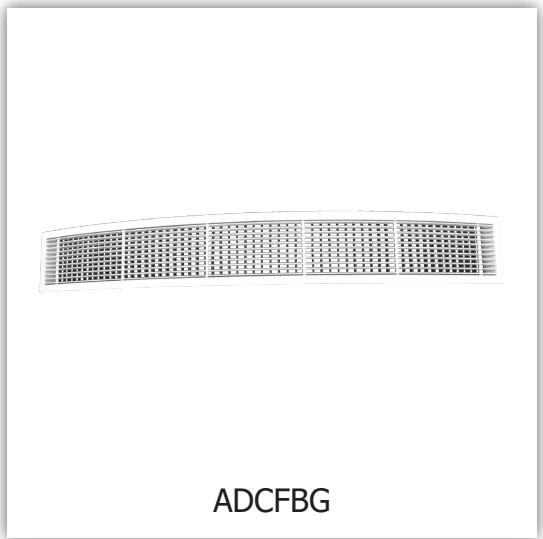
Sections can be butted together for continuous installation, joining pieces supplied.

Optional adjustable vertical back blades can be fitted to rear.

Blade profile 25 x 3mm aluminium flat bar at 18mm centres.

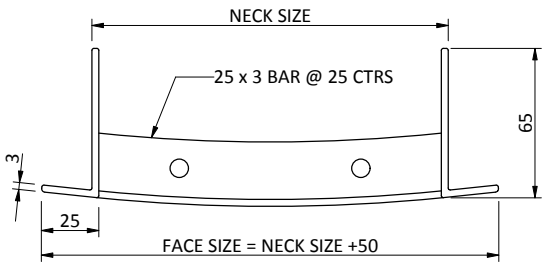
Standard finish powder coat satin white.

BAR GRILLE WITH CURVED FACE
Model ADCFBG



ADCFBG

DESIGN DETAILS (mm)



APPLICATIONS

Curved face bar grilles are an attractive and unique grille that follow the curve of a wall or structure.

Grilles can be made to fit both concave and convex curves.

A versatile grille ideal for supply or exhaust applications.

FEATURES

Manufactured from extruded aluminium that is lightweight and resistant to rust and corrosion.

Heavy duty grilles can be manufactured to specific weight requirements.

Blade profile 25 x 3mm aluminium flat bar at 18mm centres.

Individually adjustable vertical blades can be fitted to the inside neck of the grille enabling throw directional control on the vertical plane.

Diameter or radius of curve needs to be specified at the time of order.

Standard finish powder coat satin white.

BAR GRILLE
Model ADBG

Performance at 0o Blade Deflection																
Nominal Size	1200 x 50				1200 x 75				1200 x 100				1200 x 125			
Core m/s	0.060 sqm				0.090 sqm				0.120 sqm				0.150 sqm			
	L/s	Pa	t.50	t.25	L/s	Pa	t.50	t.25	L/s	Pa	t.50	t.25	L/s	Pa	t.50	t.25
1.0	60	4	2	3	90	3	2	3	120	4	3	4	150	4	3	4
1.5	90	9	3	4	135	7	3	4	180	9	4	5	225	9	4	6
2.0	120	15	3	5	180	13	4	5	240	16	5	6	300	16	5	7
2.5	150	24	4	6	225	20	5	7	300	25	5	8	375	25	6	8
3.0	180	35	4	6	270	29	5	8	360	36	6	9	450	36	8	10
3.5	210	47	5	7	315	40	6	9	420	49	7	10	525	50	8	11
4.0	240	61	6	8	360	52	7	10	480	64	8	11	600	65	9	12
5.0	300	95	7	10	450	81	8	11	600	100	9	13	750	101	10	15

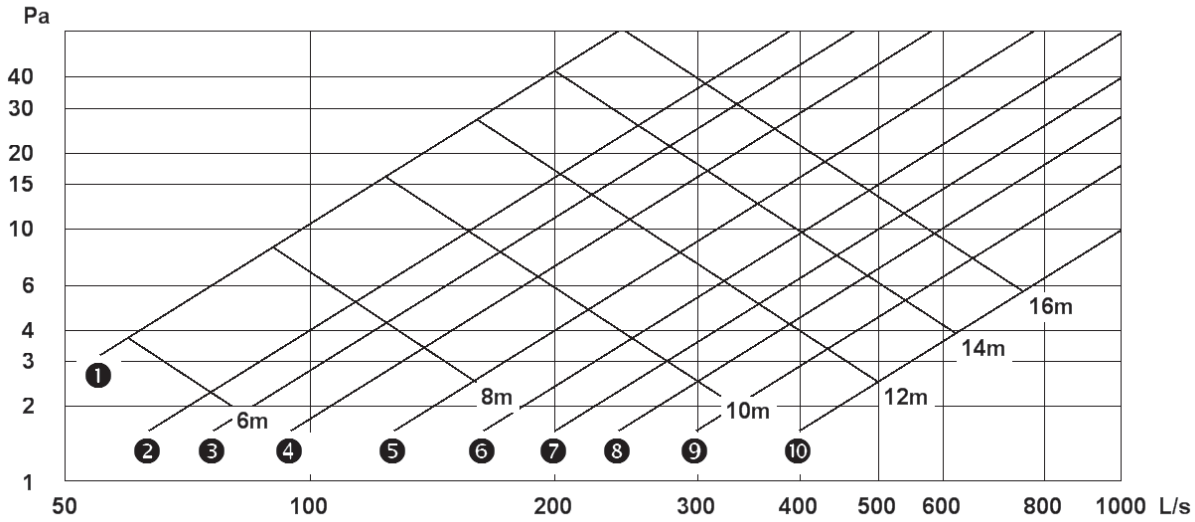
Performance at 0o Blade Deflection																
Nominal Size	1200 x 150				1200 x 200				1200 x 225				1200 x 250			
Core m/s	0.180 sqm				0.240 sqm				0.270 sqm				0.300 sqm			
	L/s	Pa	t.50	t.25	L/s	Pa	t.50	t.25	L/s	Pa	t.50	t.25	L/s	Pa	t.50	t.25
1.0	180	3	3	4	240	3	3	5	270	3	3	5	300	3	4	5
1.5	270	7	4	6	360	8	5	7	405	7	5	7	450	6	5	7
2.0	360	13	5	7	480	14	6	8	540	12	6	9	600	10	6	9
2.5	450	20	6	9	600	22	7	10	675	18	7	10	750	16	7	11
3.0	540	29	7	10	720	31	8	12	810	26	8	12	900	23	9	12
3.5	630	40	8	12	840	42	9	13	945	36	9	14	1050	31	10	14
4.0	720	52	9	13	960	55	10	15	1080	47	11	15	1200	40	11	15
5.0	900	81	11	15	1200	86	12	18	1350	73	13	18	1500	63	13	19

Performance at 0o Blade Deflection								
Nominal Size	1200 x 300				1200 x 400			
Core m/s	0.360 sqm				0.480 sqm			
	L/s	Pa	t.50	t.25	L/s	Pa	t.50	t.25
1.0	360	2	4	5	480	2	4	6
1.5	540	5	5	8	720	5	6	9
2.0	720	9	7	9	960	9	8	11
2.5	900	15	8	11	1200	14	9	13
3.0	1080	21	9	13	1440	21	10	15
3.5	1260	29	10	15	1680	28	12	17
4.0	1440	37	12	16	1920	37	13	19
5.0	1800	58	14	20	2400	58	16	22

t.50 - Throw (m) to terminal velocity of 0.5m/s.
t.25 - Throw (m) to terminal velocity of 0.25m/s

BAR GRILLE
Model ADBG

Bar Grille - 0° Deflection



Throw (m) is to a terminal velocity of 0.25m/s.
Throw to a terminal velocity of 0.5m/s is approximately 70% of the above.

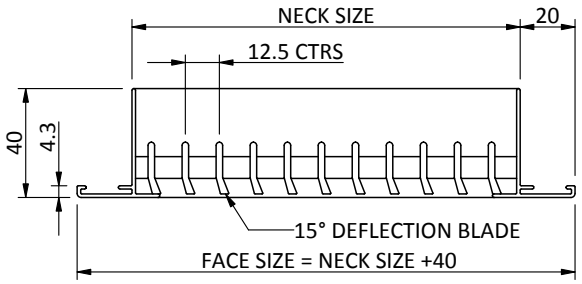
Grille Size

❶	❷	❸	❹	❺	❻	❼	❽	❾	❿
1200x50	1200x75	1200x100	1200x125	1200x150	1200x200	1200x225	1200x250	1200x300	1200x400

SLIM LINE GRILLE (15° DEFLECTION BLADE)
Model ADSL

ADSL

DESIGN DETAILS (mm)



APPLICATIONS

An attractive grille for sidewall, kickboard or floor mounted applications equally efficient in heating, cooling and ventilation applications.

The 15o deflection blade provides directional air control with a precision quality appearance.

FEATURES

Constructed of extruded, lightweight aluminium resistant to rust and corrosion.

Sections can be butted together for continuous appearance.

Ideal for supply or exhaust application.

Alternative blade spacing available on request.

Standard finish powder coat satin white.

SLIM LINE GRILLE (15° DEFLECTION BLADE)
Model ADSL

Slim Line Grille Performance																
Nominal Size	1200 x 50				1200 x 75				1200 x 100				1200 x 125			
Core m/s	0.060 sqm				0.090 sqm				0.120 sqm				0.150 sqm			
	L/s	Pa	t.50	t.25	L/s	Pa	t.50	t.25	L/s	Pa	t.50	t.25	L/s	Pa	t.50	t.25
1.0	60	5	1	2	90	4	2	3	120	5	2	3	150	5	2	3
1.5	90	10	2	3	135	9	2	3	180	11	3	4	225	11	3	4
2.0	120	18	3	4	180	16	3	4	240	19	4	5	300	19	4	6
2.5	150	29	3	4	225	24	4	5	300	30	4	6	375	30	5	7
3.0	180	41	4	5	270	35	4	6	360	43	5	7	450	44	5	8
3.5	210	56	4	6	315	48	5	7	420	59	6	8	525	59	6	9
4.0	240	73	5	6	360	62	5	8	480	77	6	9	600	78	7	10
5.0	300	114	5	8	450	97	6	9	600	120	8	11	750	121	8	12

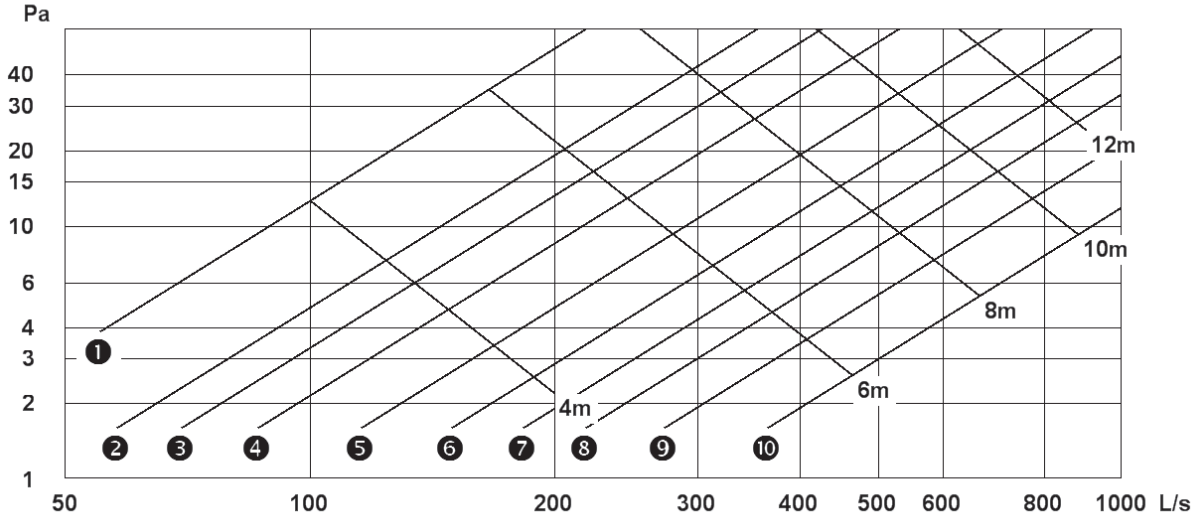
Slim Line Grille Performance																
Nominal Size	1200 x 150				1200 x 200				1200 x 225				1200 x 250			
Core m/s	0.180 sqm				0.240 sqm				0.270 sqm				0.300 sqm			
	L/s	Pa	t.50	t.25	L/s	Pa	t.50	t.25	L/s	Pa	t.50	t.25	L/s	Pa	t.50	t.25
1.0	180	4	2	3	240	4	3	4	270	3	3	4	300	3	3	4
1.5	270	9	3	5	360	9	4	5	405	8	4	5	450	7	4	6
2.0	360	16	4	6	480	17	5	7	540	14	5	7	600	12	5	7
2.5	450	24	5	7	600	26	6	8	675	22	6	8	750	19	6	9
3.0	540	35	6	8	720	37	7	9	810	31	7	10	900	27	7	10
3.5	630	48	6	9	840	51	7	11	945	43	8	11	1050	37	8	11
4.0	720	62	7	10	960	66	8	12	1080	56	8	12	1200	48	9	12
5.0	900	97	9	12	1200	104	10	14	1350	987	10	14	1500	76	10	15

Slim Line Grille Performance								
Nominal Size	1200 x 300				1200 x 400			
Core m/s	0.360 sqm				0.480 sqm			
	L/s	Pa	t.50	t.25	L/s	Pa	t.50	t.25
1.0	360	3	3	4	480	3	3	5
1.5	540	6	4	6	720	6	5	7
2.0	720	11	5	8	960	11	6	9
2.5	900	17	6	9	1200	17	7	10
3.0	1080	25	7	10	1440	25	8	12
3.5	1260	34	8	12	1680	34	9	13
4.0	1440	45	9	13	1920	44	10	15
5.0	1800	70	11	16	2400	69	12	18

NOTE:
t.50 - Throw (m) to terminal velocity of 0.5m/s.
t.25 - Throw (m) to terminal velocity of 0.25m/s

SLIM LINE GRILLE (15° DEFLECTION BLADE)
Model ADSL

Slim Line Grille



Throw (m) is to a terminal velocity of 0.25m/s.
Throw to a terminal velocity of 0.5m/s is approximately 70% of the above.

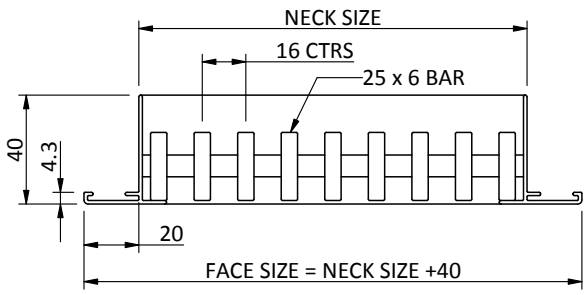
Grille Size

❶	❷	❸	❹	❺	❻	❼	❽	❾	❿
1200x50	1200x75	1200x100	1200x125	1200x150	1200x200	1200x225	1200x250	1200x300	1200x400

FLOOR BAR GRILLE
Model ADFG

ADFG

DESIGN DETAILS (mm)



APPLICATIONS

Floor grilles are a secure type grille for supply or return air applications.

Heavy duty floor grilles are also available as a trafficable product with the inclusion of support bars and angles secured behind the blades

Balancing dampers can be fitted behind the grille to control air distribution.

Core Velocity		2.0 m/s	2.5 m/s
Nominal Size	Neck Area	L/s	L/s
300 x 100	0.03m²	30	37
300 x 200	0.06m²	67	84
400 x 200	0.08m²	90	112
500 x 200	0.10m²	112	140
600 x 300	0.18m²	209	262
600 x 400	0.24m²	285	356
600 x 600	0.36m²	435	544

FEATURES

Constructed of extruded lightweight aluminium, will not rust or corrode.

Blade 25 x 6mm flat aluminium bar at 16mm centres (10mm spaces).

Angle welded to back of grille for strength (where required or specified).

Standard finish powder coat satin white.

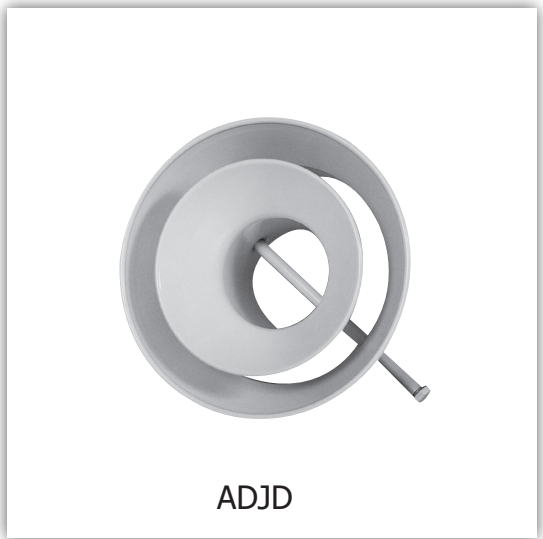
FLOOR BAR GRILLE
Model ADFG

ACOUSTIC AND AIRFLOW PERFORMANCE

SOUND POWER LEVEL, dB re 1E-12 W OCTAVE BAND CENTRE FREQUENCY (Hz)										
Qs (L/s)	**Ps (Pa)**	**T (m)**	**NC**	**125**	**250**	**500**	**1000**	**2000**	**4000**	**8000**
511	5	>4	29	52.4	50.1	39.0	35.4	33.9	27.3	-
698	10	>4	38	61.4	57.6	49.2	47.5	46.5	42.4	35.5
777	12.5	>4	41	64.2	59.8	52.8	50.5	49.7	46.4	40.5
850	15	>4	44	66.7	61.5	54.8	52.8	52.3	49.0	42.8
966	20	>4	48	70.2	64.4	58.7	56.7	56.2	54.0	48.7
1069	25	>4	51	72.1	66.8	61.9	60.5	59.7	58.1	53.0
1159	30	>4	56	73.5	67.7	63.0	62.4	62.1	59.3	54.5
1238	35	>4	58	75.8	69.6	64.8	64.5	64.3	61.5	56.6
1322	40	>4	60	76.3	70.4	66.4	65.2	64.9	62.6	57.2
1385	45	>4	61	78.2	71.7	66.9	66.6	66.2	63.8	59.3
1460	50	>4	63	80.2	73.0	68.3	67.6	67.1	64.8	60.8

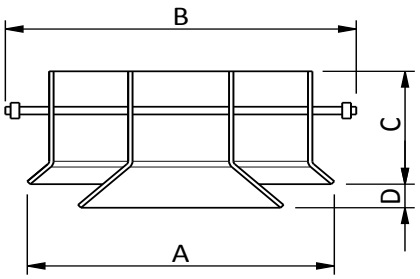
Qs Primary Air Flow Rate (L/s)
Ps Supply Static Pressure (Pa)
T Vertical Throw in meters to a terminal velocity of 0.25 m/s (m)
- Insufficient margin above background noise to allow accurate determination
> Length of throw greater than that able to be measured
NC Noise Criterion based upon room absorption of 10 dB

JET DIFFUSER
Model ADJD



ADJD

DESIGN DETAILS (mm)



STOCK SIZES (mm)

DIA	A	B	C	D
200	185	200	90	15
250	215	250	115	15
300	265	300	115	20
350	315	350	115	20
400	360	400	115	30
500	435	500	115	25

Exact dimensions listed.
500dia has 3 cones (centre cone sits 35mm lower than measurement D)

APPLICATIONS

Jet Diffusers are an attractive option for air conditioning large areas.

The cone shape is designed to handle large air velocities and create exceptionally long throws.

Ideal for high ceilings Jet Diffusers are highly effective in large areas like warehouses, shopping centres and sports halls.

Fully adjustable and interchangeable between 'jet' and 'diffuse' positions.

A popular choice for exposed duct ceilings.

FEATURES

Jet Diffusers also available with flanged spigot (see page 46).

Jet diffuser banks available for mounting multiple diffusers into a plenum box or plate. With multiple diffusers, several areas within a large radius can be targeted effectively from a single installation.

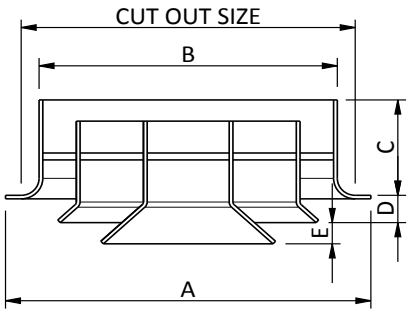
Supplied with locking nuts to facilitate fixing to existing duct.

Standard finish powder coat satin white.

JET DIFFUSER IN FLANGED SLEEVE
Model ADJDN

ADJDN

DESIGN DETAILS (mm)



APPLICATIONS

The Jet diffuser mounted in a flanged sleeve is an attractive option for air conditioning large areas.

The cone shape is designed to handle large air velocities and create exceptionally long throws.

Ideal for high ceilings, Jet Diffusers are highly effective in large areas like warehouses, shopping centres and sports halls.

Fully adjustable and interchangeable between 'jet' and 'diffuse' positions.

STOCK SIZES (mm)

DIA	A	B	C	D	E	CUT OUT SIZE
200	250	200	125	30	15	227
250	300	250	125	35	15	280
300	355	300	125	35	20	330
350	410	350	125	35	20	380
400	455	400	115	35	30	435
500	555	500	115	35	25	530

Exact dimensions listed.
500dia has 3 cones (centre cone sits 35mm lower than measurement E).

FEATURES

Jet diffuser banks available for mounting multiple diffusers into a plenum box or plate. With multiple diffusers, several areas within a large radius can be targeted effectively from a single installation.

Supplied with locking nuts to facilitate fixing to existing duct.

Standard finish powder coat satin white.

JET DIFFUSER
Model ADJD

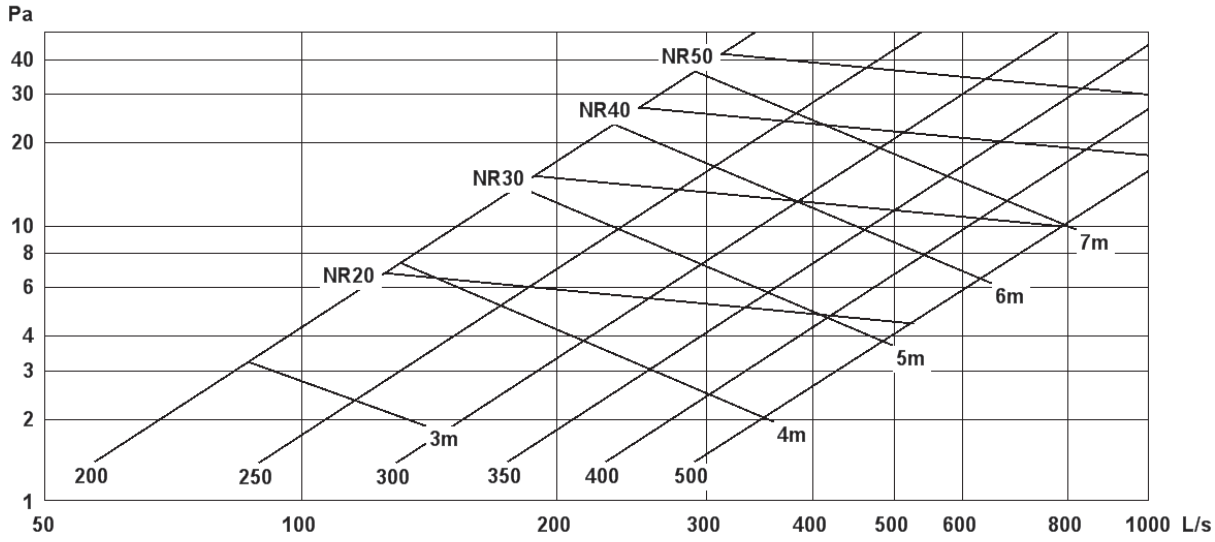
Jet Diffuser Connected Directly to Flexible Air Duct													
Diffuser			Throw (m) to terminal vel.		SOUND POWER LEVEL, dB re 1pW Octave Band Centre Frequency, Hz								
Size	L/s	Pa	0.5m/s	0.25m/s	125	250	500	1000	2000	4000	8000	NR	dB(A)
200	120	6	3.7	5.9	46	38	41	36	32	25	27	26	31
	210	19	5.5	7.6	55	51	53	55	48	43	41	45	47
	250	27	6.0	8.2	59	57	58	63	56	51	56	53	55
250	160	4	5.0	7.1	43	38	36	36	28	19	21	26	29
	280	14	6.7	8.9	48	44	45	48	40	31	29	38	40
	400	28	7.8	10.0	54	50	54	59	52	42	48	49	51
300	240	5	5.2	7.4	43	34	34	36	27	26	28	26	29
	420	15	6.9	9.1	50	44	43	47	39	34	32	37	39
	600	30	8.0	10.2	57	53	52	58	51	41	47	48	50
350	320	5	6.0	8.1	49	46	45	47	39	30	32	37	39
	560	14	7.7	9.8	54	51	50	53	45	36	38	43	45
	900	37	9.2	11.3	60	57	57	61	53	43	49	51	53
400	400	5	5.3	7.5	44	37	38	36	27	26	28	26	30
	700	15	7.0	9.2	51	47	46	48	38	34	32	38	40
	1000	31	8.1	10.3	59	56	55	59	50	41	47	49	51
500	500	4	4.2	5.2	37	31	31	29	19	19	21	19	23
	875	12	6.0	7.5	47	43	42	43	34	30	28	33	36
	1200	25	7.0	8.6	58	55	55	58	49	41	42	48	50
Jet Diffuser Connected Directly to Cushion Head													
350	320	11	5.3	7.4	60	54	54	57	49	39	42	47	49
	560	34	7.0	9.2	64	59	59	63	55	45	43	53	55
	700	88	8.5	10.6	67	61	62	66	58	48	54	56	58
400	400	7	4.6	6.8	46	39	37	41	31	26	29	31	33
	700	21	6.3	8.5	56	51	50	53	44	37	36	43	45
	1000	43	7.4	9.6	67	63	62	66	57	49	43	56	57

NOTE:

1. The angle of discharge is 30° with or without cushion head, however with cushion head fitted, the principle direction is approximately 40° off the diffuser nozzle axis.
2. "Pa" is the in-duct total pressure one diameter upstream of diffuser spigot.
3. NR and dB(A) calculated with assumed 10dB deducts for room effect.

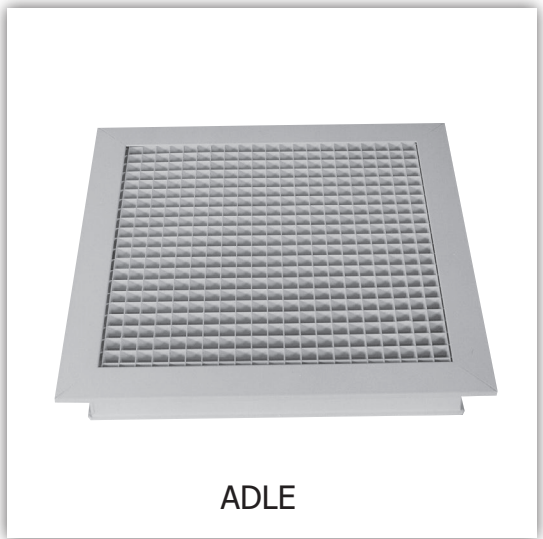
JET DIFFUSER
Model ADJD

Jet Diffuser



Notes
Data for Jet Diffuser connected directly to flexible duct.
Throw (m) is to a terminal velocity of 0.5m/s.
Throw to a terminal velocity of 0.25m/s is approximately 40% of the above.

EGGCRATE GRILLE
Model ADLE



ADLE

LAY-IN CORE

APPLICATIONS

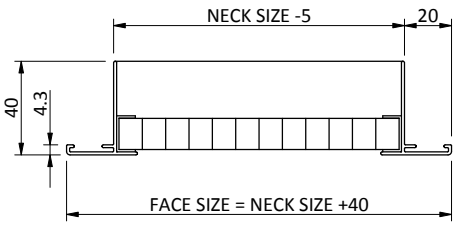
Industry standard extract grille.

With 90% free area these grilles can handle extremely high air volumes with minimal pressure drop and noise.

Framed core and clip in removable core options available (see pages 50 and 51).

45 degree eggcrate is available for exhaust and return air applications. The angled eggcrate results in blocking sight from most angles.

DESIGN DETAILS (mm)



STOCK SIZES (mm)

Code	Nominal Neck Size
LE1515	150 X 150
LE2020	200 X 200
LE2525	250 X 250
LE3030	300 X 300
LE3535	350 x 350
LE4040	400 X 400
LE4545	450 X 450
LE5050	500 X 500
LE5929	595 X 295 FACE
LE5959	595 X 595 FACE
LE6030	600 X 300
LE6040	600 X 400
LE9045	900 X 450
LE9050	900 X 500
LE9060	900 X 600
LE1159	1195 X 595 FACE

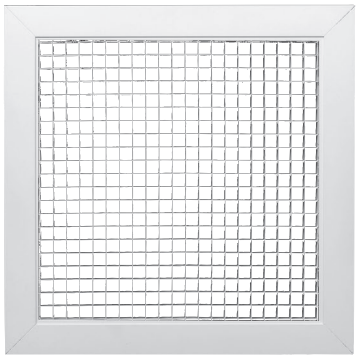
FEATURES

Aluminium lightweight construction.

12mm cubed lattice core in extruded aluminium frame.

Standard finish powder coat satin white.

EGGCRATE GRILLE
Model ADLE FRC



ADLE FRC

FRAMED LAY-IN CORE

APPLICATIONS

Lay-in style with the eggcrate core contained in a concealed frame, specified particularly for commercial projects.

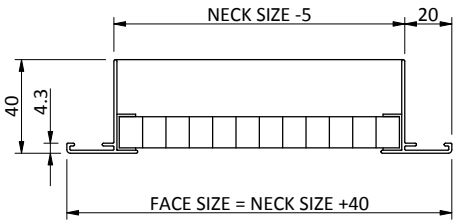
With 90% free area these grilles can handle extremely high air volumes with minimal pressure drop and noise.

Designed to fit any ceiling suspension.

This model is the same as the ADLE except it has a channel framing the eggcrate core.

45 degree eggcrate is available for exhaust and return air applications. The angled eggcrate results in blocking sight from most angles.

DESIGN DETAILS (mm)



STOCK SIZES (mm)

Code	Nominal Neck Size
LEFRC2525	250 X 250
LEFRC3030	300 X 300
LEFRC5959	595 X 595 FACE
LEFRC1159	1195 X 1195 FACE

FEATURES

Aluminium lightweight construction.

Single channel framed 12mm cubed lattice core in extruded aluminium frame.

Standard finish powder coat satin white.

EGGCRATE GRILLE
Model ADLE COC

ADLE COC

CLIP OUT CORE (VIA FACE OF GRILLES)

APPLICATIONS

The clip-out-core eggcrate grille is versatile for any application and provides flexibility with installation as it doesn't require depth behind the core of the grille to remove the core.

With 90% free area these grilles can handle extremely high air volumes with minimal pressure drop and noise.

Designed to fit any ceiling suspension.

45 degree eggcrate option is available to enable directional control in supply air applications. The angled eggcrate results in blocking sight from most angles.

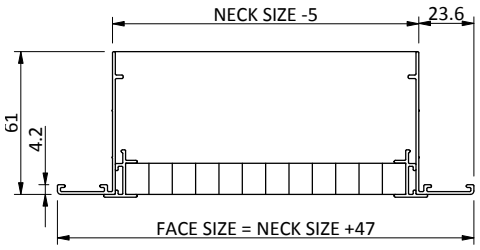
FEATURES

Aluminium lightweight construction.

12mm cubed lattice core in extruded aluminium frame.

Standard finish powder coat satin white.

DESIGN DETAILS (mm)



STOCK SIZES (mm)

Code	Nominal Neck Size
LEC1515	150 X 150
LEC2020	200 X 200
LEC2525	250 X 250
LEC3030	300 X 300

EGGCRATE GRILLE
Model ADLE

Performance										
Core Velocity	m/s	1.5	2.0	2.5	3.0	3.5	4.0	5.0	6.0	7.0
Static Pressure	Pa	2.8	5.0	7.8	11.2	15.3	20	31	45	61
Air Volume and Noise Rating										
150 x 150	L/s	30	40	50	60	70	80	100	120	140
200 x 100	NR					21	24	30	36	42
200 x 150	L/s	45	60	75	90	105	120	150	180	210
300 x 100	NR					23	26	32	39	45
300 x 150	L/s	68	90	113	135	158	180	225	270	315
200 x 200	NR				20	23	26	33	39	46
250 x 250	L/s	90	120	150	180	210	240	300	360	420
300 x 200	NR				20	24	27	34	40	47
300 x 300	L/s	135	180	225	270	315	360	450	540	630
600 x 150	NR			17	20	24	27	34	41	48
450 x 300	L/s	203	270	338	405	473	540	675	810	945
400 x 350	NR			18	21	25	29	36	43	50
400 x 400	L/s	240	320	400	480	560	640	800	960	1120
600 x 250	NR			19	22	26	30	37	45	52
500 x 350	L/s	270	360	450	540	630	720	900	1080	1260
600 x 300	NR			19	23	27	31	39	46	54
500 x 400	L/s	300	400	500	600	700	800	1000	1200	1400
	NR			20	24	28	31	39	47	55
600 x 400	L/s	360	480	600	720	840	960	1200	1440	1680
	NR			20	24	28	32	40	47	55
600 x 500	L/s	450	600	750	900	1050	1200	1500	1800	2100
	NR			20	24	28	32	40	48	56
900 x 400	L/s	540	720	900	1080	1260	1440	1800	2160	2520
	NR			20	24	28	32	41	49	57
750 x 600	L/s	675	900	1125	1350	1575	1800	2250	2700	3150
	NR			21	25	29	33	41	49	57
900 x 600	L/s	810	1080	1350	1620	1890	2160	2700	3240	3780
	NR			21	25	29	33	42	50	58
1200 x 500	L/s	900	1200	1500	1800	2100	2400	3000	3600	4200
	NR			21	25	30	34	42	51	59
1200 x 600	L/s	1080	1440	1800	2160	2520	2880	3600	4320	5040
	NR			21	26	30	34	43	51	60

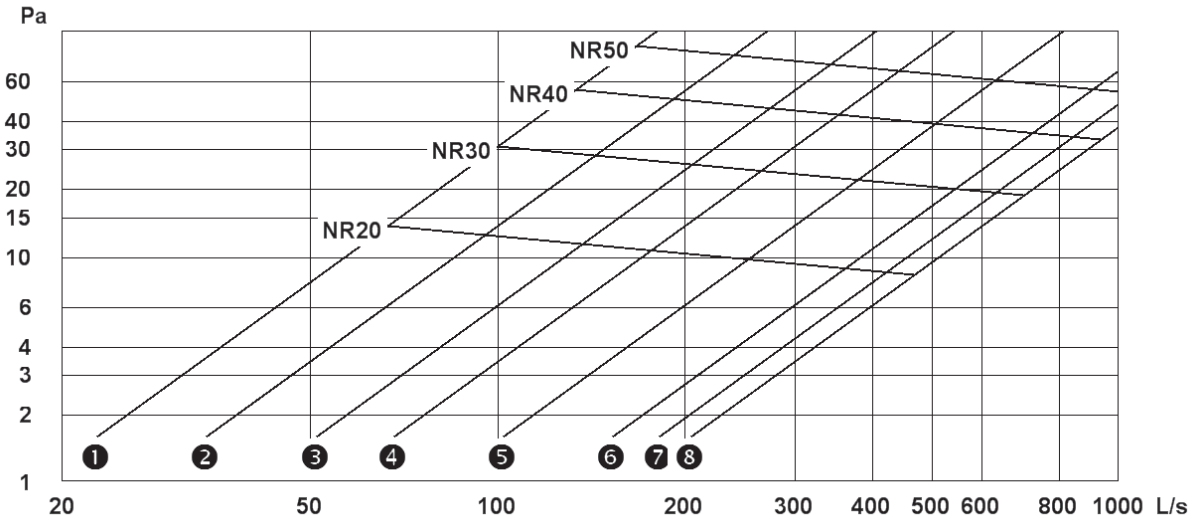
Nominal Size - Millimetres Air Volume - Litres per second Core Velocity - Metres per second Static Pressure - Pascal

Recommended Noise Levels

Typical Applications	Noise Rating NR
Bedroom / Auditorium	25-30
Private Office	35-40
General Office	40-45
Light Industrial	50-60

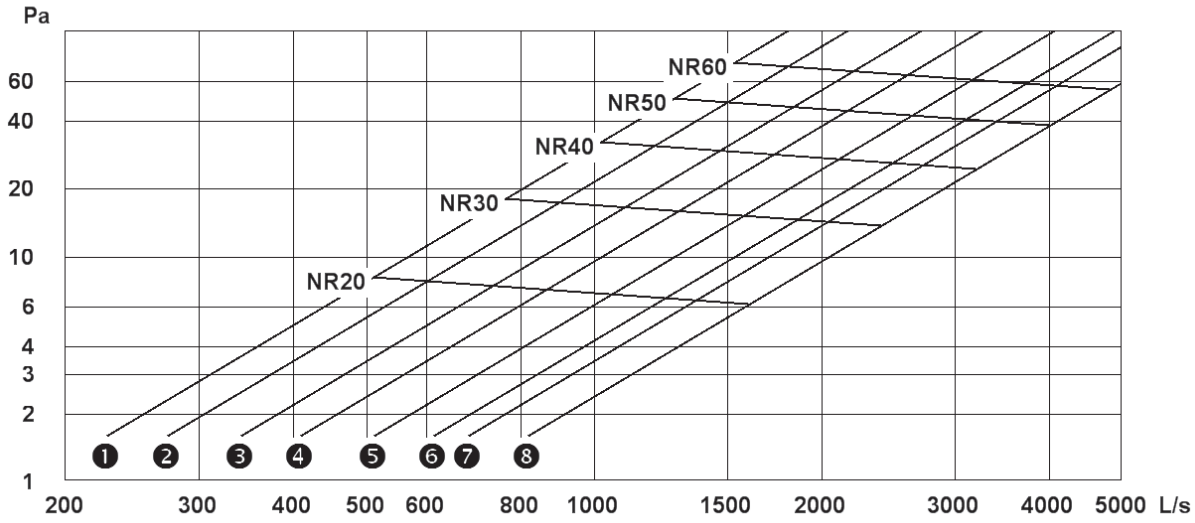
EGGCRATE GRILLE
Model ADLE

Eggcrate Grilles



Nominal Neck Size

❶	❷	❸	❹	❺	❻	❼	❽
150x150	200x150	300x150	250x250	300x300	450x300	400x400	500x350



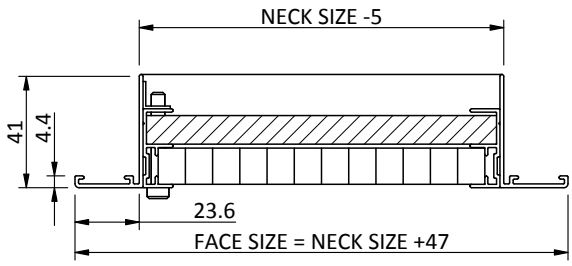
Nominal Neck Size

❶	❷	❸	❹	❺	❻	❼	❽
500x400	600x400	600x500	900x400	750x600	900x600	1200x500	1200x600

RETURN AIR GRILLE REMOVABLE CORE WITH FILTER
Model ADHEF

ADHEF

DESIGN DETAILS (mm)



Stock Sizes

Code	Nominal Neck Size
HE3030	300 X 300
HE3535	350 X 350
HE4040	400 X 400
HE4545	450 X 450
HE5040	500 X 400
HE5929	595 X 295 FACE
HE5959	595 X 595 FACE
HE6040	600 X 400
HE6045	600 X 450
HE6050	600 X 500
HE7040	700 X 400
HE7045	700 X 450
HE7050	700 X 500
HE7540	750 X 400
HE7545	750 X 450
HE7550	750 X 500
HE7555	750 X 550
HE8050	800 X 500
HE8060	800 X 600
HE8065	800 X 650
HE9040	900 X 400
HE9045	900 X 450
HE9050	900 X 500
HE9055	900 X 550
HE9060	900 X 600
HE1159	1195 X 595 FACE
HE1240	1200 X 400

APPLICATIONS

The industry standard domestic return air grille, typically installed in ceilings but can also be wall mounted.

Thumbscrew/s located on the face of the grille secure the core in place.

A slide panel filter is fitted to the rear of the core to prevent dust from entering the return air duct.

The core can be completely removed from the outer frame for easy installation and cleaning as required.

Some units indicate when the filter should be cleaned/changed depending on use. If not, we suggest at least every 6 months in domestic applications.

FEATURES

Aluminium lightweight construction.

Constructed of 12mm cubed lattice core eggcrate in extruded frame.

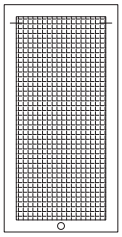
Filter (supplied as standard) removable for easy cleaning.

Standard finish powder coat satin white.

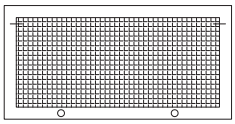
RETURN AIR GRILLE REMOVABLE CORE WITH FILTER
Model ADHEF

When ordering please take note:

As a standard thumbscrews are located on the short side.



Alternatively, if required, thumbscrews can be located on the long side (needs to be specified at time of order).



Nominal Neck Size	Neck Area sqm	Air Flow (L/s) for Core Velocity			
		1.5 m/s	1.75 m/s	2 m/s	2.5 m/s
300 x 300	0.09	79	93	106	132
400 x 350	0.14	139	162	185	231
500 x 350 600 x 300	0.18	181	211	241	301
500 x 400 450 x 450	0.20	213	248	284	355
600 x 400 500 x 450	0.24	262	306	350	437
600 x 500 750 x 400	0.30	342	399	456	570
900 x 400 600 x 600	0.36	411	479	548	685
750 x 600	0.45	541	631	721	901
1200 x 400	0.48	559	653	746	932
900 x 600 1200 x 450	0.54	660	770	880	1100
1200 x 500	0.60	729	850	972	1215

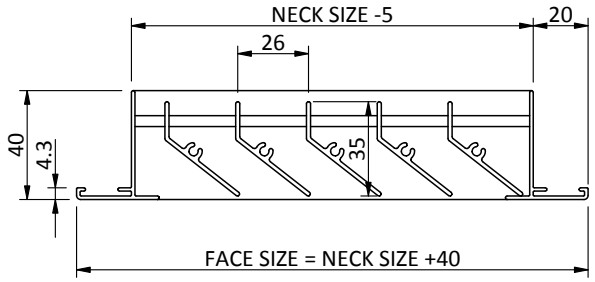
TEST FIGURES		
Media Type	TM50	TM30
Face Velocity	1.75m/s	1.78m/s
Arrestance #4 Dust	72.8%	60.5%
Initial Resistance	20 Pa	13 Pa
Dust Holding Capacity	16.7kg/m_@62Pa	1.4kg/m_@ 39Pa

NOTE:
Select grille size to suit filter face velocity.
Filter performance at a velocity greater 1.8m/s is not guaranteed.

HALF CHEVRON FIXED CORE RETURN AIR GRILLE
Model ADHC FC

ADHC FC

DESIGN DETAILS (mm)



APPLICATIONS

Fixed core half chevron grilles are ideal for wall return or transfer air applications where a no-sight effect is to be achieved below eye level, the same can be achieved for above eye level by inverting the blade.

FEATURES

Aluminium lightweight construction.

Fixed core half Chevron.

Blades set at 26mm centres.

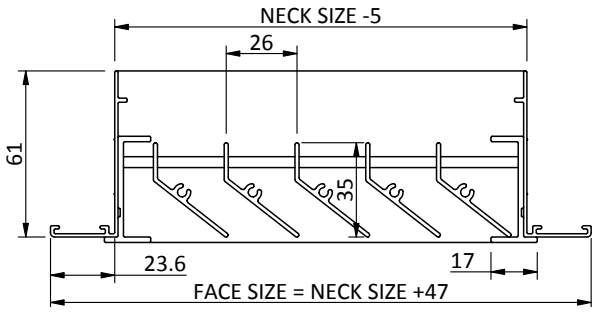
Approximate free area 60%.

Standard finish powder coat satin white.

HALF CHEVRON WITH REMOVABLE CORE
Model ADHC RC

ADHC RC
(no filter)

DESIGN DETAILS (mm)



APPLICATIONS

The removable core half chevron grille is ideal for wall return and transfer air applications where a no-sight effect is to be achieved below eye level, the same can be achieved for above eye level by inverting the blade.

The core is held in place by magnetic catches and can be easily removed for installation, cleaning and access behind register.

Very popular in commercial applications but also often used as a low level return air grille in domestic reverse cycle and ducted gas installations.

FEATURES

Aluminium lightweight construction.

Clip out removable core for easy installation and access behind register.

Horizontal 45º Blades set at 26mm centres.

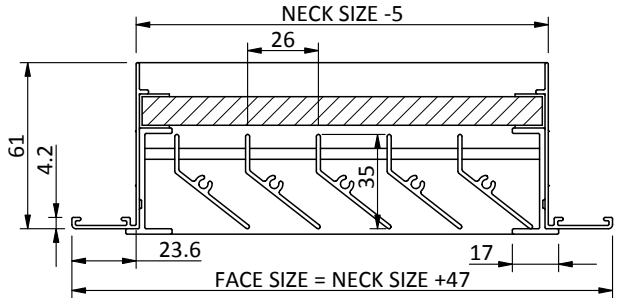
Approximate free area 60% - Grille only.

Standard finish powder coat satin white.

HALF CHEVRON WITH REMOVABLE CORE
Model ADHC RCF

ADHC RCF
(with filter)

DESIGN DETAILS (mm)



APPLICATIONS

The removable core half chevron grille with filter is ideal for wall return and transfer air applications. A no-sight effect is achieved below eye level, and the same can be achieved for above eye level by inverting the blade.

The core is held in place by magnetic catches and can be easliy removed for installation, filter cleaning and access behind register.

Some units indicate when the filter should be cleaned/changed depending on use. If not, we suggest at least every 6 months in domestic applications.

A clean filter can significantly impact the performance of the unit.

SELECTION GUIDE

Size	Neck Area	Max LS
(Nom)	Sq.m	Based on 2.0 m.s.
450 x 600	0.25	350
450 x 750	0.337	438
500 x 900	0.45	584
450 x 1000	0.45	584
450 x 1200	0.54	702
550 x 1150	0.632	820

1297 l/s per m^2. Based on a clean filter.
Selection to be used as a guide only

FEATURES

Aluminium lightweight construction.

Clip out removable core for ease of filter cleaning and access behind register.

Removable slide filter fitted to core.

Half Chevron's feature horizontal 45º Blades set at 26mm centres.

Approximate free area 60% - Grille only.

Standard finish powder coat satin white.

HALF CHEVRON RETURN AIR GRILLE
Model ADHC FC

Air flow vs. neck area for various neck velocities

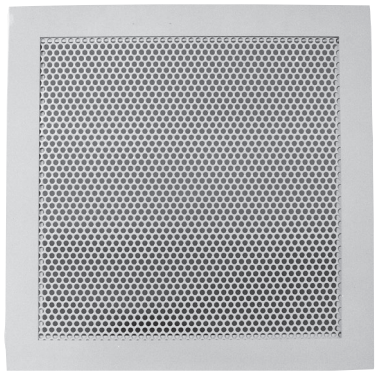
Size	300 x 300 600 x 150	450 x 300 900 x 150	600 x 300 900 x 200	750 x 300 600 x 375	900 x 300 600 x 450	1200 x 300 600 x 600	900 x 450 675 x 600	1200 x 450 900 x 600	900 x 900 1350 x 600	1000 x 1000 2000 x 500
Neck Area m2	0.090	0.135	0.180	0.225	0.27	0.36	0.405	0.54	0.81	1.000
L/s 50	0.5					Neck Velocity - Meters/Sec (m/s)				
75	1.0	0.5								
100			0.5							
125		1.0		0.5						
150	2.0				0.5					
175			1.0			0.5				
200				1.0			0.5			
250	3.0	2.0			1.0			0.5		
300	4.0		2.0							
350	4.5	3.0				1.0				
400	5.0			2.0			1.0		0.5	
450		3.5								
500		4.0	3.0		2.0			1.0		0.5
600		5.0	4.0	3.0						
700			4.5	3.5	3.0	2.0			1.0	
800			5.0	4.0	3.5	2.5	2.0			
900				4.5	4.0	3.0	2.5			
1000				5.0	4.5	3.5	3.0	2.0		1.0
1500					5.5	4.5	4.0	3.0	2.0	
2000						5.5	4.5	4.0	3.0	2.0
2500							5.5	5.0	3.5	2.5
3000									4.0	3.0
3500									5.0	3.5
4000										4.0
5000										5.0

HALF CHEVRON RETURN AIR GRILLE
Model ADHC FC

Air flow vs. neck area for various static pressures

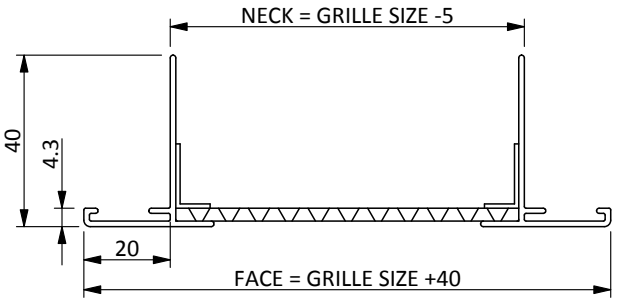
Size	300 x 300 600 x 150	450 x 300 900 x 150	600 x 300 900 x 200	750 x 300 600 x 375	900 x 300 600 x 450	1200 x 300 600 x 600	900 x 450 675 x 600	1200 x 450 900 x 600	900 x 900 1350 x 600	1000 x 1000 2000 x 500
Neck Area m2	0.090	0.135	0.180	0.225	0.27	0.36	0.405	0.54	0.81	1.000
L/s 50						Static Pressure - Pa				
75	2.5									
100	7.5									
125	15	5	2.5							
150	22.5	5	5	2.5						
175	32.5	7.5	5	2.5	2.5					
200	40	7.5	5	5	2.5					
250	42.5	15	7.5	5	2.5					
300		17.5	10	7.5	5	5	2.5			
350		25	12.5	10	7.5	5	2.5	2.5		
400		32.5	17.5	10	10	5	5	2.5		
450		40	25	12.5	10	7.5	5	2.5		
500		50	32.5	17.5	10	7.5	5	5	2.5	
600			37.5	22.5	15	10	7.5	5	5	2.5
700				30	22.5	15	10	7.5	5	2.5
800					42.5	27.5	15	10	5	2.5
900					45	30	17.5	12.5	7.5	5
1000					50	35	20	15	10	5
1500						37.5	22.5	17.5	12.5	7.5
2000						75	50	37.5	20	15
2500									37.5	22.5
3000										50

PERFORATED DIFFUSER
Model ADPD



ADPD

DESIGN DETAILS (mm)



APPLICATIONS

Perforated plate diffusers are perfect for areas where resistance to tampering is desirable, such as schools. The holes are too small to push fingers through guarding against injury and damage.

The throw created is stable making these grilles ideal in supply applications.

The 50% free area gives good capability for air handling when used in return applications.

FEATURES

50% perforated metal standard, alternatives available on request.

Are designed to fit any ceiling suspension.

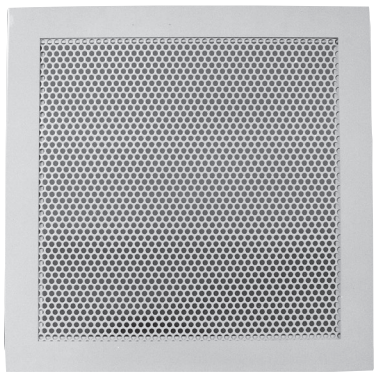
Lightweight aluminium construction.

Standard finish powder coat satin white.

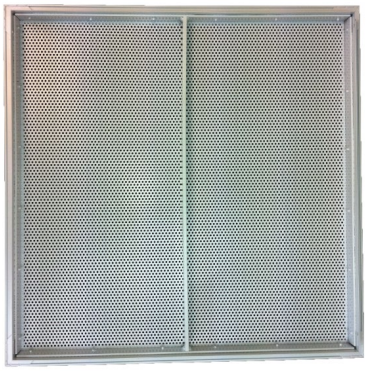
SELECTION GUIDE

Grille Size	1.0m/s	1.5m/s	2.0m/s	2.5m/s	3.0m/s
	L/s	L/s	L/s	L/s	L/s
150 x 150	10	15	21	27	31
200 x 200	19	28	38	48	57
250 x 250	29	44	59	74	88
300 x 300	43	64	86	106	128
350 x 350	58	86	116	145	174
400 x 400	76	114	152	190	228
450 x 450	96	143	192	240	288
500 x 500	118	177	238	296	356
600 x 600	171	256	342	428	513
900 x 450	191	287	384	480	575
900 x 600	256	384	513	641	769
1200 x 600	342	513	684	855	1026

PERFORATED DIFFUSER
Model ADPD40

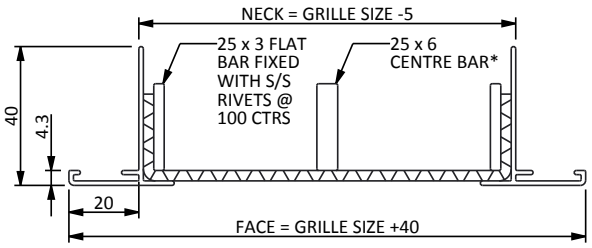


ADPD40 (FRONT)



ADPD40 (REAR)

DESIGN DETAILS (mm)



SELECTION GUIDE

Grille Size	1.0m/s	1.5m/s	2.0m/s	2.5m/s	3.0m/s
	L/s	L/s	L/s	L/s	L/s
150 x 150	6	9	13	16	19
200 x 200	12	18	25	31	37
250 x 250	20	30	41	51	61
300 x 300	30	45	61	76	91
350 x 350	42	63	85	106	127
400 x 400	56	84	113	141	169
450 x 450	72	108	145	181	217
500 x 500	90	135	181	226	271
600 x 600	132	198	265	331	397
900 x 450	149	223	298	372	446
900 x 600	201	302	403	503	604
1200 x 600	270	405	541	676	811

APPLICATIONS

Secure type grille for supply or return air applications, designed to fit any ceiling suspension.

Perforated plate diffusers are ideal in areas where resistance to tampering is desirable, such as schools (the holes are too small to push fingers through guarding against injury and damage).

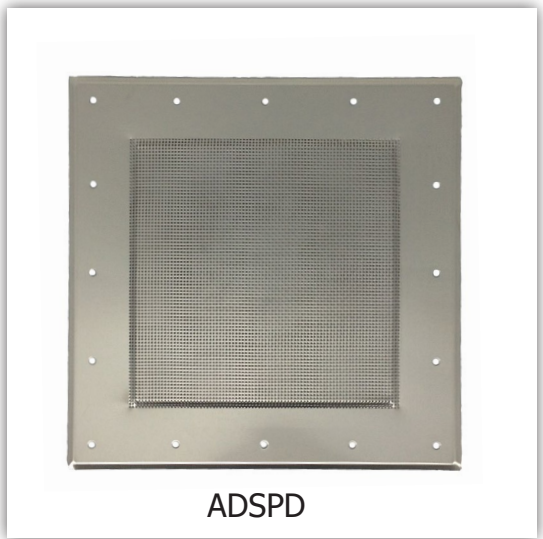
FEATURES

2.06mm holes @ 3.10mm centres 1.6mm galvanised perforated plate, 40% free area

25 x 3mm flat bars fixed to the inside neck with stainless steel rivets @ 100mm centres for additional strength and security.

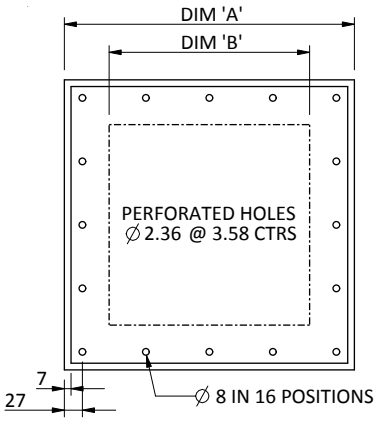
25 x 6mm centre flat bar welded to rear of grille on sizes 450 x 450 (mm) and larger.

SECURE PLATE DIFFUSER
Model ADSPD



ADSPD

DESIGN DETAILS (mm)



SIDE PROFILE

APPLICATIONS

Secure perforated plate diffusers are designed for secure applications where resistance to tampering is required.

Approved by the department of correctional services for projects at Port Augusta Prison and Mount Gambier Prison.

EXAMPLE SIZING

Inner perforated section	Outer edge size
300 x 300	434 x 434
350 x 350	484 x 484
400 x 400	534 x 534
450 x 450	584 x 584

FEATURES

Material: 1.5mm thick 304 #4 stainless steel sheet

Break: 7mm x 1.5mm high (max)

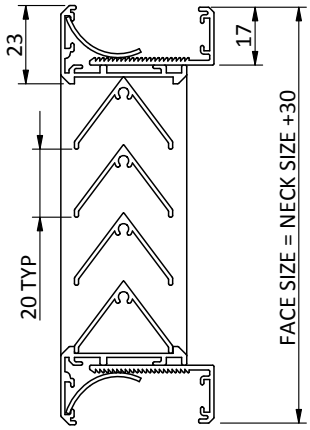
Centre perforated Ø2.38@3.57 ctrs.

Manufactured is stainless steel but can be made available in steel and powder coated.

DOOR GRILLE
Model ADDG

ADDG

DESIGN DETAILS (mm)



APPLICATIONS

Door grilles are a vision proof method of transferring air in partition applications.

The telescopic frame requires no extra fixing, the two frames simply click together enabling equal appearance from both sides.

The telescopic frame suits doors or partitions from 29mm to 48mm wide.

SELECTION GUIDE

Maximum L/s	Based on 2.0 M/s	Maximum L/s	Based on 2.0 M/s
600 x 120	72	600 x 460	276
600 x 160	96	600 x 500	300
600 x 200	120	600 x 600	360
600 x 260	156	600 x 700	420
600 x 300	180	600 x 800	480
600 x 360	216	600 x 900	540
600 x 400	240	600 x 1000	600

STOCK SIZES

Code	Neck Size	Cut Out Size
DG3016	300 X 160	300 X 165
DG4020	400 X 200	400 X 205
DG6010	600 X 100	600 X 105
DG6016	600 X 160	600 X 165
DG6020	600 X 200	600 X 205
DG6026	600 X 260	600 X 265
DG6030	600 X 300	600 X 305
DG6036	600 X 360	600 X 365
DG6040	600 X 400	600 X 405
DG6046	600 X 460	600 X 465
DG6050	600 X 500	600 X 505
DG6060	600 X 600	600 X 605

FEATURES

An inverted "v" blade for vision proof appearance.

Chevron type blades spaced at 20mm centres for maximum free area consistent with non-vision construction.

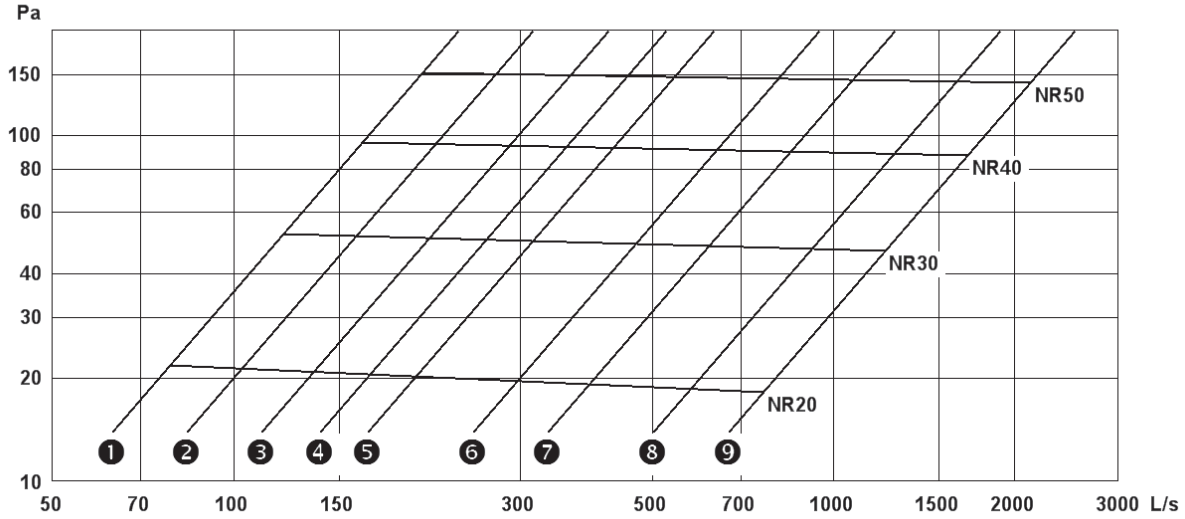
Approximately 50% free area.

Clips located on the inner frame snap fit the outer frame, eliminating the need for rivets or screws.

Standard finish natural anodised.

DOOR GRILLE
Model ADDG

Aluminium Door Grille



Grille Size

❶	❷	❸	❹	❺	❻	❼	❽	❾
450x160	600x160	600x200	600x260	600x300	600x460	600x600	600x900	600x1200

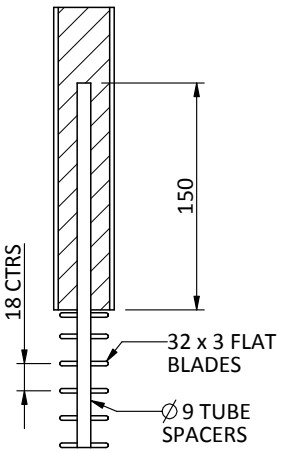
Legend

Pa	Pascals
L/s	Litres per second
NR	Noise Rating

UNDER DOOR GRILLE
Model ADUDG

ADUDG

DESIGN DETAILS (mm)



APPLICATIONS

A full width bar grille designed for use where complete vision obstruction is not required.

Manufactured from extruded aluminium, the design ensures good airflow by providing substantial open area.

The grille is installed and secured using 9mm dia tubes glued into the bottom of the door. A suitable adhesive should be used to attach the grille into the mounting holes.

Ensure adequate clearance is provided under the grille for floor coverings.

SELECTION GUIDE

Height (mm)	Blades	L/s@ 2.0m/s	Free Area
93	6	124	.062
111	7	148	.0738
129	8	172	.086
147	9	196	.098
165	10	220	.11
183	11	246	.123
201	12	270	.135
219	13	295	.1476
237	14	320	.16

FEATURES

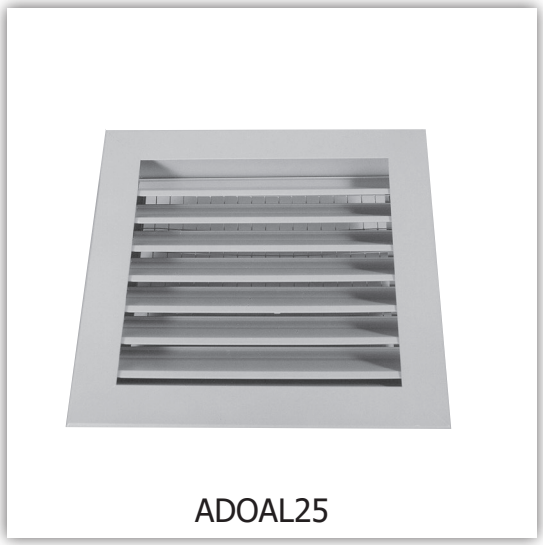
All aluminium construction.

Free Area: 82%

Suggested selection: 2.0 m/sec

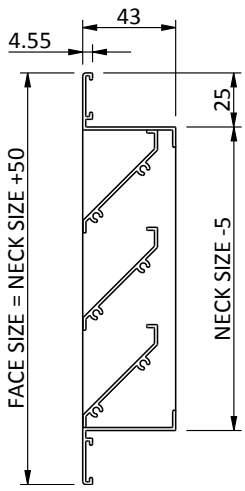
Available in both natural anodised and powder coated finishes.

OUTSIDE AIR LOUVRE
Model ADOAL25



ADOAL25

DESIGN DETAILS (mm)



APPLICATIONS

A popular outside air louvre suitable for supply, relief and exhaust applications.

The sloping blade design minimises water ingress and provides good protection against general weather conditions

Bird mesh is fitted to the rear of the blades to prevent unwanted objects passing through the louvre.

Designed with clean lines to visually compliment the exterior of buildings.

STOCK SIZES

Code	Neck Size
OAL251515	150 X 150
OAL252020	200 X 200
OAL252525	250 X 250
OAL253030	300 X 300
OAL253535	350 X 350
OAL254040	400 X 400
OAL254545	450 X 450
OAL255050	500 X 500
OAL256060	600 X 600

FEATURES

Constructed from lightweight aluminium extrusion that will not rust when exposed to the elements.

Vermin / Bird proof galvanised mesh is fitted to the rear of all grilles as standard, 12 x 12 x .8mm.

Standard finish is 15um natural anodised.

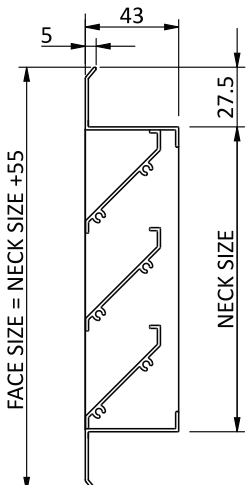
Also available in a circle finish (see next page).

Custom shapes available on request (i.e. triangle, diamond, arch).

OUTSIDE AIR LOUVRE ROUND
Model ADOAL25R

ADOAL25R

DESIGN DETAILS (mm)



APPLICATIONS

A popular outside air louvre suitable for supply, relief and exhaust applications.

The sloping blade design minimises water ingress and provides good protection against general weather conditions

Bird mesh is fitted to the rear of the blades to prevent unwanted objects passing through the louvre.

Designed with clean lines to visually compliment the exterior of buildings.

STOCK SIZES

Code	Neck Size
OAL25R15	150º
OAL25R20	200º
OAL25R25	250º
OAL25R30	300º

FEATURES

Constructed from lightweight aluminium extrusion that will not rust when exposed to the elements.

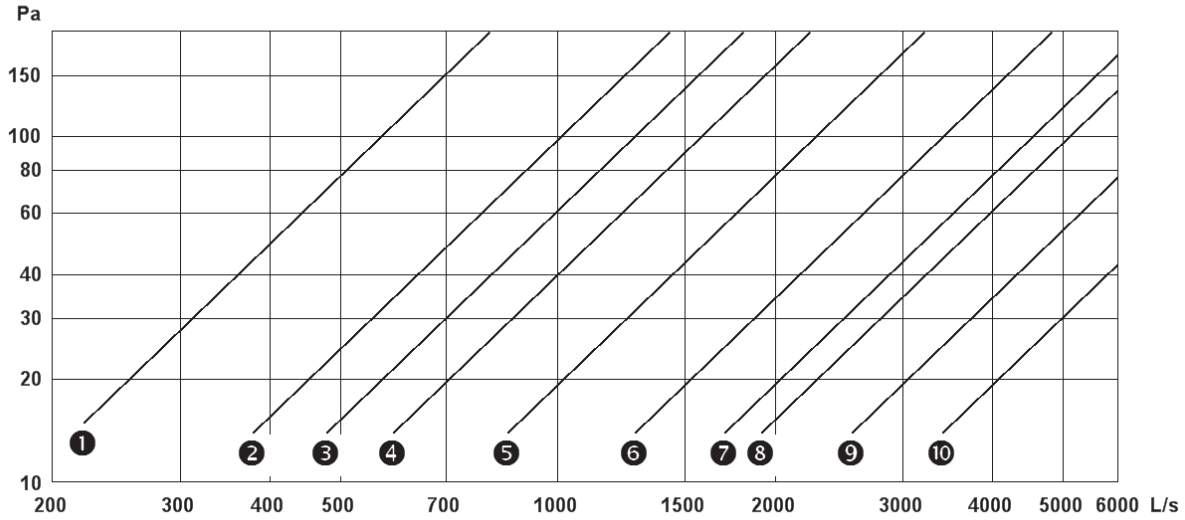
Vermin / Bird proof galvanised mesh is fitted to the rear of all grilles as standard, 5 x 5 x .8mm.

Standard finish is Powdercoat Silver.

Also available in a square finish (see previous page).

OUTSIDE AIR LOUVRE
Model ADOAL25

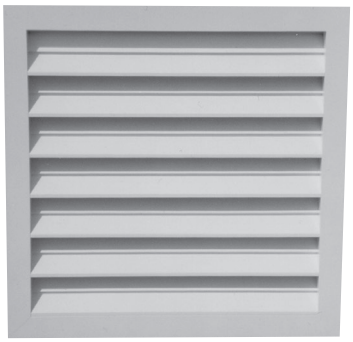
Outside Air Louvre



Nominal Neck Size

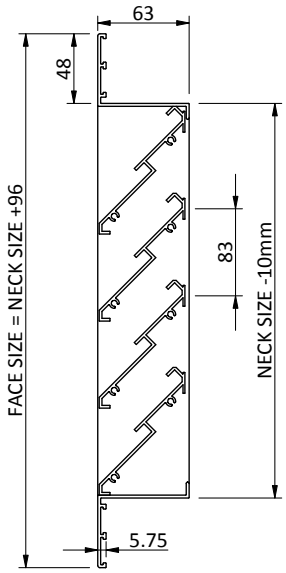
❶	❷	❸	❹	❺	❻	❼	❽	❾
300x300, 600x150	450x300, 900x150	600x300, 900x200	750x300, 600x375	900x300, 600x450	1200x300, 600x600	900x450, 675x600	1200x450, 900x600	900x900, 1350x600

HEAVY DUTY OUTSIDE AIR LOUVRE
Model ADOAL50



ADOAL50

DESIGN DETAILS (mm)



APPLICATIONS

Storm style outside air louvres feature a double rain trap and are designed to ensure minimum ingress of water whilst producing maximum air flow at low noise level.

The larger blade profile is inherently stronger and more rigid than the ADOAL25 model louvre.

This louvre can be used for both exhaust and supply application and custom shapes are a speciality (i.e. triangles, diamonds, arches, and circular).

Designed with clean lines to visually compliment the exterior of buildings.

FEATURES

All louvres are manufactured from heavy duty extruded aluminium sections.

Standard finish is 15um natural anodised.

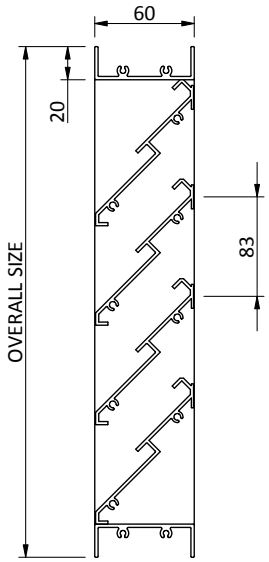
Mullion fitted when width exceeds 1500mm.

Minimum louvre height 300mm.

HEAVY DUTY OUTSIDE AIR LOUVRE
Model ADOAL50C

ADOAL50-C

DESIGN DETAILS (mm)



APPLICATIONS

Storm style outside air louvres feature a double rain trap to ensure minimum ingress of water whilst producing maximum air flow at low noise level.

The larger blade profile is inherently stronger and more rigid than the ADOAL25 model louvres. The strong aluminium channel frame provides flexibility for installation.

Designed with clean lines to visually compliment the exterior of buildings.

FEATURES

Manufactured from heavy duty extruded aluminium sections.

Standard finish is 15um natural anodised.

Mullion fitted when width exceeds 1500mm.

Minimum louvre height is 300mm.

HEAVY DUTY OUTSIDE AIR LOUVRE
Model ADOAL50

Table No.1 Square metre for Louvre Size (Neck Dimensions)

Height	Width										
	300	375	450	600	750	900	1050	1200	1350	1500	1800
300	.041	0.51	.061	.082	.102	.123	.143	.164	.184	.205	.245
375	.058	0.73	.087	.116	.145	.174	.203	.232	.261	.290	.378
450	.074	.092	.111	.147	.185	.221	.258	.295	.332	.368	.442
600	.102	.127	.153	.204	.255	.305	.356	.407	.458	.509	.611
750	.132	.165	.198	.264	.330	.395	.462	.527	.594	.659	.791
900	.161	.201	.242	.322	.403	.483	.565	.644	.725	.805	.964
1050	.191	.239	.286	.382	.477	.573	.668	.764	.859	.955	1.15
1200	.220	.275	.330	.440	.550	.660	.770	.880	.990	1.10	1.32
1350	.249	.312	.375	.499	.624	.749	.874	1.00	1.03	1.25	1.50
1500	.277	.346	.418	.555	.694	.832	.973	1.11	1.25	1.39	1.66
1800	.333	.416	.499	.665	.832	1.00	1.16	1.33	1.50	1.66	2.00

Table No.2 Pressure Loss for Core Velocity

Velocity (m/s)	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	7.0
Exhaust (Pa)	3	5	8	12	17	22	27	34	41	48	66

SELECTION PROCEDURE

e.g. An external grille for exhausting 1000 L/s with a pressure loss of 12 Pa is required.

From Table 2 (above) a velocity of 3.0 m/s would give a pressure loss of 12 Pa.

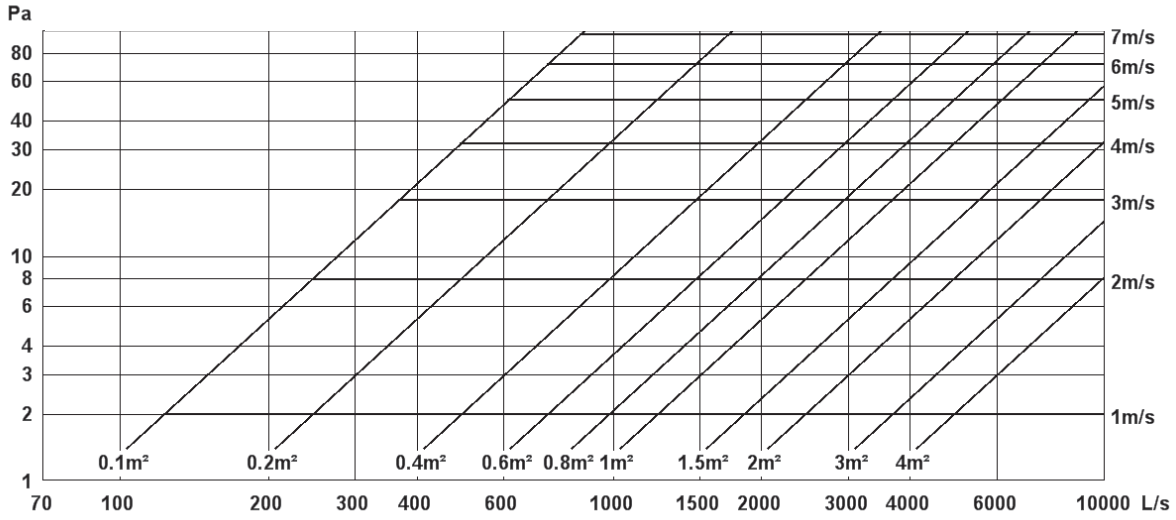
The free area corresponding to this air volume and velocity is:

$$\text{Free area} = \frac{\text{Air Volume}}{\text{Velocity} \times 1000} = 0.333 \text{ sqm}$$

From Table 1, suitable grille sizes would be 1350 x 450 or 750 x 750 or 1800 x 375

HEAVY DUTY OUTSIDE AIR LOUVRE
Model ADOAL50

Outside Air Louvre Storm Style
Exhaust Performance based on Free Area



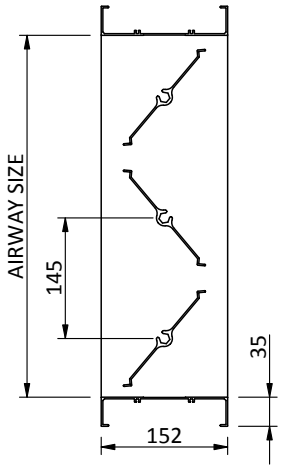
Legend

Pa	Pascals
L/s	Litres per second
NR	Noise Rating

VOLUME CONTROL DAMPER MANUAL
Model ADVCDMAN

ADVCDMAN

DESIGN DETAILS (mm)



APPLICATIONS

General purpose volume control damper.

All aluminium construction.

More resistant to corrosion enabling them to be used in areas of high humidity, like swimming centres and tropical environments.

Significantly lighter than their steel counterparts.

Easy to operate.

Low leakage when closed and they create very little resistance when open.

FEATURES

Aluminium lightweight construction (much lighter than steel dampers).

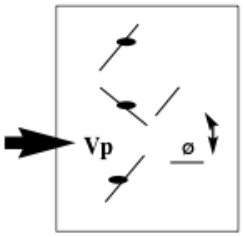
Interlocking Blades for low leakage.

Nylon Bearings.

Quadrant fitted for manual operation.

VOLUME CONTROL DAMPER MANUAL
Model ADVCDMAN

P.D. Test Method	Loss Coefficient C								
Rectangular Duct		Ø							
	L/R	80°	70°	60°	50°	40°	30°	20°	10°	0°
	0.3	807	284	73	21	9.0	4.1	2.1	0.8	0.52
	0.4	915	332	100	28	11	5.0	2.2	0.9	0.52
	0.5	1945	377	122	33	13	5.4	2.3	0.9	0.52
	0.6	1124	411	148	38	14	6.0	2.3	0.9	0.52
	0.8	1299	495	188	54	18	6.6	2.4	1.0	0.52
	1.0	1521	547	245	65	21	7.3	2.7	1.0	0.52
	1.5	1654	677	360	107	28	9.0	3.2	1.1	0.52



P.D. = Vp x C where
P.D. = Pressure Drop
Vp = Velocity Pressure
C = Loss Coefficient

$\frac{L}{R}$ $\frac{Nw}{2(H+W)}$

Where:
N = Number of damper blades
W = Duct dimension parallel to blade axis
L = Sum of damper blade length
R = Perimeter of duct

For manual balancing and motorised opposed blade dampers, the pressure drop should not exceed the values calculated from the 1981 SMACNA duct design tables.

SPECIFICATIONS

Maximum pressure differential: 1.5kPa (6inch WC).

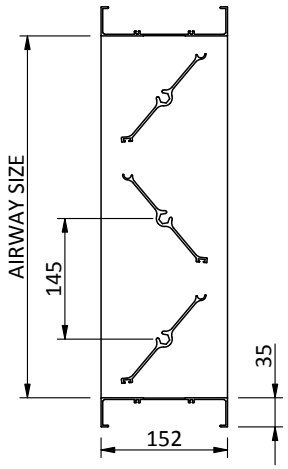
Maximum approach velocity: 20m/sec (4000 fpm).

Temperature range: -40 to +93 degree C (in inflatable seal).

VOLUME CONTROL DAMPER MOTORISED
Model ADVCDMOT

ADVCDMOT

DESIGN DETAILS (mm)



APPLICATIONS

General purpose volume control damper with hexonal shaft to suit motor operation.

All aluminium construction.

More resistant to corrosion enabling them to be used in areas of high humidity, like swimming centres and tropical environments.

Significantly lighter than their steel counterparts.

Easy to operate.

Low leakage when closed and they create very little resistance when open.

FEATURES

All extruded aluminium construction.

Self inflating Rubber Blade Tip Seals.

Nylon Bearings to ensure smooth action.

Hexagonal shaft supplied to suit motor operation (motor not supplied).

High temper 50mm aluminium venetian side seals.

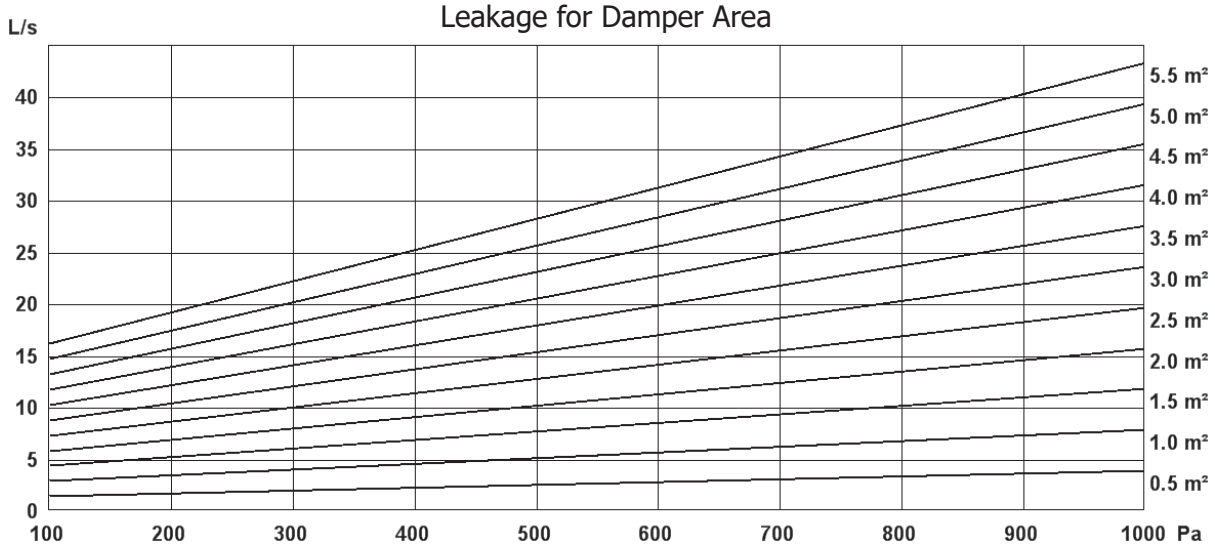
VOLUME CONTROL DAMPER MOTORISED
Model ADVCDMOT

		Loss Coefficients for air at 1.2kg/m3 Density. C=PD / (0.6 x V_2)											
Pressure Drop (Pa)	50	333	83	37	21	13	9.3	6.8	5.2	4.1	3.3	2.8	2.3
	100	667	167	74	42	27	18.5	13.6	10.4	8.2	6.7	5.5	4.6
	150	1000	250	111	63	40	27.8	20.4	15.6	12.3	10.0	8.3	6.9
	200	1333	333	148	83	53	37.0	27.2	20.8	16.5	13.3	11.0	9.3
	300	2000	500	222	125	80	55.6	40.8	31.3	24.7	20.0	16.5	13.9
	400	2667	667	296	167	107	74.1	54.4	41.7	32.9	26.7	22.0	18.5
	500	3333	833	370	208	133	92.6	68.0	52.1	41.2	33.3	27.5	23.1
	600	4000	1000	444	250	160	111.1	81.6	62.5	49.4	40.0	33.1	27.8
	700	4667	1167	519	292	187	129.6	95.2	72.9	57.6	46.7	38.6	32.4
	800	5333	1333	593	333	213	148.1	108.8	83.3	65.8	53.3	44.1	37.0
	900	6000	1500	667	375	240	166.7	122.4	93.8	74.1	60.0	49.6	41.7
	1000	6667	1667	741	417	267	185.2	136.1	104.2	82.3	66.7	55.1	46.3
	1100	7333	1833	815	458	293	203.7	149.7	114.6	90.5	73.3	60.6	50.9
	1300	8667	2167	963	542	347	240.7	176.9	135.4	107.0	86.7	71.6	60.2
		0.5	1 m/s	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
		Core Velocity (m/s)											

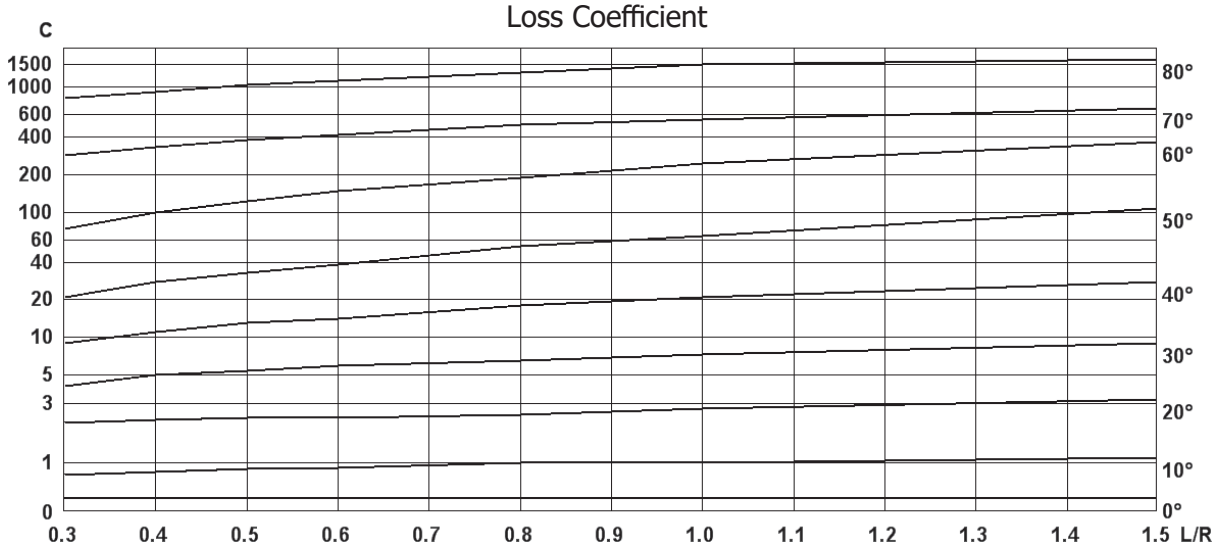
For Manual Balancing and Motorised Opposed Blade Dampers, the pressure drop should not exceed the values calculated from the 1981 SMACNA duct design tables.

VOLUME CONTROL DAMPER MOTORISED
Model ADVCDMOT

Volume Control Damper
Leakage for Damper Area



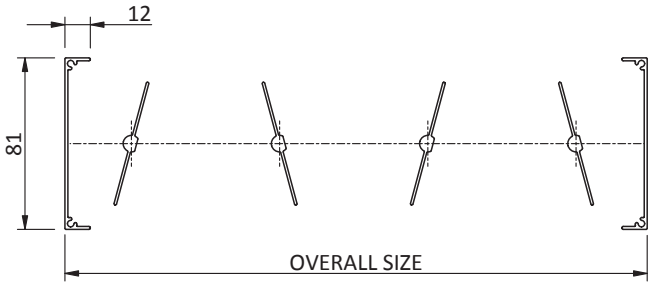
Volume Control Damper
Loss Coefficient



OPPOSED BLADE DAMPER
Model ADOBD

ADOBD

DESIGN DETAILS (mm)



STOCK SIZES

Code	O/All Size (mm)
OBD1515	150 X 150
OBD2020	200 X 200
OBD2525	250 X 250
OBD3030	300 X 300
OBD3535	350 X 350
OBD4040	400 X 400
OBD4545	450 X 450

Alternative sizes made to order

APPLICATIONS

A reliable volume control device that is easy to operate in both commercial and domestic applications to balance air distribution.

These lightweight dampers are fitted directly to the back of grilles with fixing side plates usually by way of riveting.

The opposed Blade action allows even distribution over entire face of the Diffuser and can be set in any position from fully open to fully closed.

FEATURES

Aluminium lightweight construction.

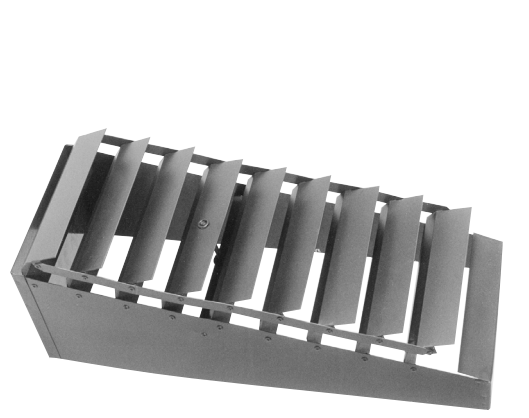
Cog system allows blades to turn in sequence.

Supplied with side plates fitted as standard for fixing to neck of diffuser or sheet metal duct.

Maximum blade length 600mm per section.

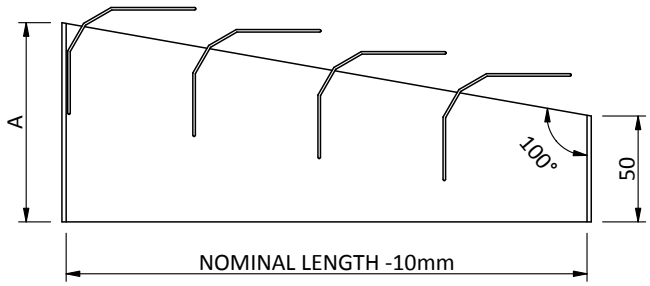
Matt Black Finish.

STREAM SPLITTER DAMPER
Model ADSSD



ADSSD

DESIGN DETAILS (mm)



A = Height variable (determined by length measurement)

APPLICATIONS

Stream Splitter Dampers are commonly used in commercial applications as a volume control device in air supply systems.

The air scooping action of the gang operated curved blades control air volume evenly over the face of the grille.

Manufactured to slide inside neck of diffuser/grille for fixing and adjustment via centrally located screw.

FEATURES

Manufactured in a wide range of sizes.

Maximum blade length 500mm per section.

Aluminium lightweight blade construction with galvanised sides.

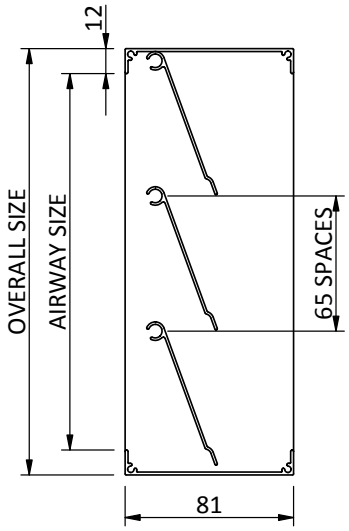
Easy screw adjustment to open and close blades.

Matt black finish.

NON RETURN DAMPER
Model ADNRD

ADNRD

DESIGN DETAILS (mm)



APPLICATIONS

Non Return Dampers, also known as back draft dampers, are suitable for situations requiring a single direction of airflow to be maintained.

These dampers are operated only by air pressure. When the air flows in the desired direction the blades open, however when the air flows in the wrong direction the blades are forced shut.

Dampers can be installed inside rigid ductwork, plenums or in-line applications with flanged ductwork.

FEATURES

Made from premium grade extruded aluminium. Suitable for use in corrosive environments like swimming pools or coastal areas.

Nylon long life bearings ensure smooth and quiet operation.

Blades individually hinged on stainless steel stub shafts.

Supplied as overall size as standard.

Foam blade tip seals to reduce rattling.

Maximum width 500mm per section.

AIR DIFFUSION AGENCIES - TERMS AND CONDITIONS OF SALE

1. DEFINITIONS

1.1. The Supplier is AIR DIFFUSION AGENCIES PTY. LIMITED (ACN: 008 267 221). The Customer is the party or any person acting on behalf of and with the authority of the Customer that the Order is provided for.

1.2. The Guarantor is the person(s), or entity, who agrees to be liable for the debts of the Customer.

1.3. The Order shall be defined as any request for the provision of Goods and/or Services by the Customer with the Supplier which has been accepted by the Supplier.

1.4. The Goods are the air conditioning goods and/or related products provided by the Supplier.

1.5. The Services are all the delivery and/or supply of Goods by the Supplier, including any advice or recommendations.

1.6. The Price is the amount invoiced for Goods supplied.

1.7. Indirect, Special or Consequential loss or damage includes i) any loss of income profit or business; ii) any loss of good will or reputation; iii) any loss of value of intellectual property.

1.8. Invoices include invoices for Goods supplied.

1.9. GST refers to Goods and Services Tax under the *Goods and Services Act 1999* ("GST Act") and the terms used herein have meanings contained within the GST Act.

1.10. Major failure refers to Major failure as defined under the *Competition and Consumer Act 2010* and the *Fair Trading Acts* in each of the States and Territories of Australia.

1.11. Security interest as defined in Section 12 of the *Personal Property Securities Act 2009* (Cth).

1.12. "Security Agreement", "Commingled Goods", "Collateral", "Financing Statement", "Financing Change Statement" is defined under Section 10 of the *Personal Property Securities Act 2009* (Cth).

2. GENERAL

2.1. These Terms and Conditions together with the Supplier's written or verbal quotation and the Supplier's Credit Application Form forms this Agreement.

2.2. Any Order requested by the Customer is deemed to be an Order incorporating these Terms and Conditions and may not be varied unless expressly agreed to by the parties in writing. In the event that an inconsistency exists and/or arises between these terms and the Order it is acknowledged between the parties that these Terms and Conditions will prevail.

2.3. No subsequent correspondence or document or discussion shall modify or otherwise vary these Terms and Conditions unless such variation is in writing and signed by the Supplier.

2.4. The Terms and Conditions are binding on the Customer, his heirs, assignees, executors, trustees and where applicable, any liquidator, receiver or administrator.

2.5. In these Terms and Conditions, the singular shall include the plural, the masculine shall include feminine and neuter and words importing persons shall apply to corporations.

2.6. Where more than one Customer completes this Agreement each shall be liable jointly and severally.

2.7. If any provision of these Terms and Conditions shall be invalid, void, illegal or unenforceable the validity, existence, legality and enforceability of the remaining provisions shall not be affected, prejudiced or impaired and the offending provision shall be deemed as severed from these Terms and Conditions.

2.8. The Supplier may license or sub-contract all or any part of its rights and obligations without the Customer's consent but the Supplier acknowledges that it remains at all times liable to the Customer.

2.9. The failure by the parties to enforce any provision of these Terms and Conditions shall not be treated as a waiver of that provision, nor shall it affect the parties' right to subsequently enforce that provision.

2.10. The Customer acknowledges that the Supplier may detail these Terms and Conditions on its website.

3. PLACEMENT OF ORDERS

3.1. Orders placed by the Customer with the Supplier will be considered valid when placing the Order in writing and/or verbally

3.2. Any written Quotation given by the Supplier shall expire thirty (30) days after the date of the written quotation. Quotations may also be provided to the Customer by verbal communication over the telephone.

3.3. All prices are based on taxes and statutory charges current at the time of the Quotation. Should these vary during the period from the date of the Quotation to the date of the invoice, the difference will become the responsibility of the Customer and the Customer will be invoiced for the extra charge by the Supplier.

4. PRICE

4.1. GST will be charged on the Goods and Services provided by the Supplier that attract GST at the applicable rate

4.2. The Supplier reserves the right to change the Price to the Order in the event of a variation which was previously unknown or unforeseen by the parties at the time the Order was placed, and notice will be provided in writing by the Supplier within a reasonable time.

4.3. At the Supplier's sole discretion the Price shall be either:

4.3.1. As detailed on invoices provided by the Supplier to the Customer in respect of Goods and or Services supplied; or

4.3.2. The Supplier quoted Price as for the Order (subject to Clause 4.2)

5. SUPPLY AND DELIVERY OF GOODS

5.1. At any time before payment is made by the Customer, the Supplier reserves their right to:

5.1.1. Decline requests for any Goods requested by the Customer.

5.1.2. Cancel or postpone the delivery of Goods at their discretion.

5.2. Delivery of the Goods shall be deemed to be complete when the Goods are collected by the Customer or are delivered to the Customer or to the carrier as nominated by the Supplier and/or Customer.

5.3. If the Customer fails to make all arrangements necessary to take delivery of the Goods the Customer shall, at the discretion of the Supplier, be liable for a $33.00 Non Delivery Fee and the Supplier shall be entitled, also at its discretion, to charge a reasonable fee for redelivery and storage.

5.4. Unless specified by the Supplier to the contrary in the Order, the Supplier does not warrant that it will be capable of providing the Goods at specific times requested by the Customer during the term of this Agreement.

5.5. Subject to otherwise complying with its obligations under this Agreement, the Supplier shall exercise its independent discretion as to its most appropriate and effective manner of providing the Goods and of satisfying the Customer's expectations of those Goods.

5.6. In the discharge of its duties, the Supplier shall comply with all reasonable directions of the Customer as to the nature and scope of the Goods to be provided.

5.7. Nothing in the above clause shall affect the Supplier's right to exercise its own judgment and to utilise its skills as it considers most appropriate in order to achieve compliance with the said resolutions, regulations and directions or otherwise with its obligations under this Agreement.

5.8. The Supplier may agree to provide, on request from the Customer, additional Goods not included or specifically excluded in the Quotation/Order. In this event, the Supplier shall be entitled to make an additional charge. Additional Goods includes, but is not limited to, alterations, amendments, and any additional visits by the Supplier after provision of the Goods at the request of the Customer.

6. PAYMENT AND CREDIT POLICY

6.1. The Customer must make full payment of the Price within thirty (30) days from the date of issue of invoice(s) for the Goods and/or Services.

Discounts

6.2. The Customer will be entitled to a discount on the Price at the rate as may be agreed from time to time by the Supplier and the Customer if payment is made within thirty (30) days from the date of issue of invoice(s) for the Goods and Services.

6.3. In the event of a default the customer will not be entitled to any discounts and shall pay the full Price as listed on the original invoice(s).

7. DISHONOUR OF CHEQUE

7.1. If any cheque issued by the Customer or by any third party in payment of the Price is dishonoured:

7.1.1. The Supplier may refuse to supply any further Goods until satisfactory payment is Received in full, including bank fees and charges;

7.1.2. The Supplier is entitled to treat the dishonour of the Customer's cheque as a repudiation of this Agreement and to elect between terminating this Agreement or affirming this Agreement, and in each case claiming and recovering compensation for loss or damage suffered from the Customer.

7.1.3. The Customer may be liable for a dishonoured cheque fee of $40.00.

8. DEFAULT

8.1. Invoices issued by the Supplier shall be due and payable upon the provision of Goods and/or services for Non-Account Customers, and invoices issued by the Supplier shall be due and payable within thirty (30) days of the date of issue for Account Customers ("Default Date") depending on terms agreed with the Supplier. Without prejudice to any other rights of the Supplier, the Customer may be charged account keeping fees of $25.00 monthly on any payment in arrears.

8.2. If the Supplier does not receive the Outstanding Balance for the Price on or before the Default Date, the Supplier may, without prejudice to any other remedy it may have, forward the Customer's outstanding account to a debt collection agency for further action. The Customer acknowledges and agrees that:

8.2.1. After the Default Date, the Outstanding Balance shall include, but not limited to, all applicable fees and charges under this Agreement;

8.2.2. The Supplier may, in its discretion, calculate interest at the rate of five percentum (5%) per annum for all monies due by Customer to the Supplier.

8.2.3. In the event of the Customer being in default of his obligation to pay and the overdue account is then referred to a debt collection agency, and/or law firm for collection the Customer shall be liable for the recovery costs incurred and if the agency charges commission on a contingency basis the Customer shall be liable to pay as a liquidated debt, the commission payable by the Supplier to the agency, fixed at the rate charged by the agency from time to time as if the agency has achieved one hundred per cent recovery and the following formula shall apply:

$$\text{Commission} = \frac{\text{Original Debt} \times 100}{100 - \text{Commission \% charged by the agency (including GST)}}$$

8.2.4. In the event the agency is Prushka Fast Debt Recovery the applicable commission rate for the amount unpaid is as detailed on www.prushka.com.au.

8.2.5. In the event where the Supplier or the Supplier's agency refers the overdue account to a lawyer the Customer shall also pay as a liquidated debt the charges reasonably made or claimed by the lawyer on the indemnity basis.

9. RISK AND LIABILITY

9.1. The Customer will ensure when placing Orders that there is sufficient information to enable the Supplier to execute the Order.

9.2. The Supplier takes no responsibility if the specifications provided by the customer are wrong or inaccurate and the Customer will be liable in that event for the expenses incurred by the Supplier for any work required to rectify the Order.

9.3. The Customer is responsible for ensuring that the Supplier is made aware of any special requirements pertaining to the Order and the Supplier relies upon the integrity of the information supplied to it.

9.4. The Supplier takes no responsibility and will not be liable for any damages or costs resulting in the Goods being faulty as a consequence of insufficient information provided by the Customer.

9.5. The Supplier takes no responsibility for representations made in relation to the Goods or any delay in the delivery of the Goods made by a third party or third party manufacturer which was organised by the Customer.

9.6. The Customer acknowledges that the Supplier shall not be liable for and the Customer releases the Supplier from any loss incurred as a result of delay or failure to provide the Goods and/or services or to observe any of these conditions due to an event of force majeure, being any cause or circumstance beyond the Supplier's reasonable control.

9.7. The Supplier does not represent that it will carry out any Services and/or provide and/or deliver any Goods unless it is included in the Quote.

9.8. Subject to Clause 10.1 and 10.2 the Customer accepts risk in relation to the Goods when the Goods pass to his care and/or control.

10. WARRANTY

10.1. The Supplier warrants that the rights and remedies to the Customer in this Agreement for warranty against defects are in addition to other rights and remedies of the Customer under any applicable Law in relation to the goods and services to which the warranty relates.

10.2. The Supplier does not purport to restrict, modify or exclude any liability that cannot be excluded under the *Competition and Consumer Act 2010* or the *Fair Trading Acts* in each of the States and Territories of Australia

Warranty for Services

10.3. The Supplier warrants that if any defect in any Service provided by the Supplier becomes apparent and is reported to the Supplier preferably within (14) days of the provision of the Services then the Supplier will (at the Supplier's sole discretion) remedy the defective Service.

10.4. To the extent permitted by law, the Supplier's liability in respect of defective services will be limited to:

10.4.1. The re-supply of the Service; or

10.4.2. The payment of the cost of having the Services supplied again; or

10.4.3. The refund of the Price paid by the Customer in respect of the Service.

10.5. In respect of all claims the Supplier shall not be liable to compensate the Customer for any reasonable delay in remedying the defective Services or in assessing the Customer's claim. The Customer warrants that it will use its best endeavors to assist the Supplier with identifying the nature of the defective Service claim.

Warranty for Goods

10.6. The warranty for Goods supplied shall be the current warranty provided by the manufacturer of the Goods. The Supplier shall not be bound by nor be responsible for any term, condition, representation or warranty other than that which is given by the manufacturer of the Goods.

10.7. The Customer continues to be responsible for all amounts owing to the Supplier in the event that any Goods are supplied on the basis that a manufacturer's warranty is in place and it subsequently becomes known to the parties that the warranty is void or inapplicable.

AIR DIFFUSION AGENCIES - TERMS AND CONDITIONS OF SALE

10.8. For Goods manufactured by the Supplier, the Supplier warrants:
Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the Goods repaired or replace if the Goods fail to be of acceptable quality and the failure does not amount to a major failure.

10.9. If the Goods and Services are not of a kind ordinarily acquired for personal, domestic or household use or consumption, the Supplier's liability for a consumer guarantee under the Australian Consumer Law in relation to those Goods and Services is limited to, at the discretion of the Supplier:

10.9.1. The resupply of the Goods and Services;

10.9.2. The payment of the cost of providing the Goods and Services again.

Claims made under Warranty

10.10. Subject to clause 11.2 of this Agreement claims for warranty should be made in one of the following ways:

10.10.1. The Customer must send the claim in writing together with proof of purchase to the Supplier as stated in clause 1.1 of this Agreement;

10.10.2. The Customer must email the claim together with the proof of purchase to the Supplier at accounts@airdiffusion.com.au

10.10.3. The Customer must contact the Supplier on the Supplier's business number 08 8307 2310.

10.11. Goods where a claim is made are to be returned to the Supplier or are to be left in the state and conditions in which they were delivered until such time as the Supplier or its Agent has inspected the Goods. Such inspection is to be carried out within a reasonable time after notification.

11. RETENTION OF TITLE

11.1. While the risk in Goods shall pass on delivery and/or supply (including all risks associated with unloading), legal and equitable title in the Goods shall remain with the Supplier until full payment of all Goods supplied by the Supplier to the Customer is made. Pending such payment the Customer:

11.1.1. Shall hold the Goods as Bailee for the Supplier and shall return the Goods to the Supplier if so requested.

11.1.2. Agrees to hold the Goods at the Customer's own risk and is liable to compensate the Supplier for all loss or damage sustained to the Goods whilst they are in the Customer's possession.

11.1.3. The Customer should store the Goods separately and in such a manner that it is clearly identified as the property of the Supplier and keep the Goods insured to full replacement value.

11.1.4. The Customer must not allow any person to have or acquire security interest in the Goods whilst the Goods are in the Customer's possession.

11.1.5. The Customer may sell and/or use the Goods in the ordinary course of business.

11.1.6. If the Goods are resold before all monies are paid to the Supplier, the Customer shall hold the proceeds of sale in a separate identifiable account on trust for the Supplier and promptly account the Supplier for those proceeds in payment of the Price for the Goods.

11.2. The Supplier is authorised to enter the Premises or the premises where the Customer stores the Goods without liability for trespass or any resulting damage in retaking possession of the Goods until the accounts owed to the Supplier by the Customer are fully paid.

11.3. Notwithstanding the provisions above, the Supplier shall be entitled to issue legal proceedings to recover the Price of the Goods.

12. PERSONAL PROPERTY SECURITIES ACT 2009 (CTH) ("PPSA")

12.1. The Customer acknowledges that these Terms and Conditions will constitute a Security Agreement which creates a security interest in favour of the Supplier over all present and after acquired Goods and/or Services supplied by the Supplier to the Customer to secure the payment of the Price or any other amount owing under this agreement from time to time including future advances.

12.2. The Customer acknowledges that by accepting these Terms and Conditions and by virtue of the retention of title clause as provided for in Clause 13, the security interest is a purchase money security interest ("PMSI") as defined under Section 14 of the PPSA for all present, after acquired Goods and/or Services including any Commingled Goods.

12.3. The security interest will continue to apply as an interest in the Collateral for the purposes of PPSA with priority over registered or unregistered security interest.

12.4. The Supplier may register the security interest as PMSI on the Personal Property Securities Register ("PPSR") under the PPSA without providing further notice to the Customer.

12.5. The Customer agrees the Supplier is not required to disclose information pertaining to the Supplier's security interest to an interest party unless required to do pursuant to PPSA or under the general law.

12.6. The Customer agrees and undertakes:

12.6.1. To sign any documents and/or provide further information reasonably required by the Supplier to register Financing Statement or Financing Change Statement on the PPSR;

12.6.2. To indemnify the Supplier for all expenses and/or costs incurred by the Supplier in registering a Financing Statement or Financing Change Statement on PPSR including the costs of amending, maintaining, releasing and enforcing any security interests in the Goods;

12.6.3. Not to register and/or make a demand to alter a Financing Statement in the Collateral without prior written consent of the Supplier;

12.6.4. To provide the Supplier with 7 days written notice of any change or proposed change to the Customer's business name, address, contact details or other changes in the Customer's details registered on the PPSR;

12.6.5. To waive any rights of enforcement under Section 115 of the PPSA for Collateral not used predominantly for personal, domestic or household purposes;

12.6.6. To waive any rights to receive Verification Statement in respect of any Financial Statement or Financing Charge Statement under Section 157 of the PPSA.

13. RETURN OF GOODS

13.1. Goods may be returned for credit if they are:

13.1.1. Wrongly supplied or oversupplied or which are defective, faulty or not in accordance with Order or Quote.

13.1.2. These goods must be returned within fourteen (14) days from the date of delivery of the Goods and must be in their original condition.

13.1.3. Items manufactured to specific requirements are not returnable under any circumstances.

13.1.4. Restocking fee may apply.

14. TERMINATION AND CANCELLATION

Cancellation by Supplier

14.1. The Supplier may cancel any Order to which these Terms and Conditions apply or cancel delivery of Goods at any time before payment is made by the Customer by giving written notice to the Customer. The Supplier shall not be liable for any loss or damage or consequential loss or damage whatever arising from such cancellation.

14.2. Without prejudice to the Supplier's other remedies at law, the Supplier shall be entitled to cancel all or any part of any Order of the Customer which remains unfulfilled and all amounts owing to the Supplier shall, whether or not due for payment, become immediately payable in the event that:

14.2.1. The Customer becomes insolvent, convenes a meeting with its creditors or proposes or enters into an arrangement with creditors, or makes an assignment for the benefit of its creditors; or

14.2.2. A receiver, manager, liquidator (provisional or otherwise) or similar person is appointed in respect of the Customer or any asset of the Customer.

Cancellation by Customer

14.3. Any Order cannot be cancelled by the Customer unless expressly agreed to by the Supplier in writing.

14.4. In the event that the Customer cancels delivery of Goods the Customer shall be liable for any loss incurred by the Supplier (including, but not limited to, any loss of profits) up to the time of cancellation.

14.5. If the Customer places an Order with the Supplier and the Supplier places an Order with a third party Supplier to meet the Customer's request, the Customer shall be liable for the Price of the Goods ordered if the Customer cancels the Order and the Goods have already been dispatched.

14.6. The Supplier acknowledges that in the event the Supplier contravenes any of the terms of this Agreement, then clauses 14.3, 14.4 and 14.5 will not apply.

15. SET-OFF

15.1. The Customer shall have no right of set-off in any suit, claim or proceeding brought by the Supplier against the Customer for default in payment.

15.2. The Customer acknowledges that the Supplier can produce this clause in bar of any proceeding for set-off.

16. INSURANCE

16.1. The Supplier is not liable to provide any insurance cover in relation to the provision of the Goods and Services. The Customer is responsible to effect whatever insurance cover he requires at his own expense.

17. AGREED USE

17.1. The Customer acknowledges that the Customer may forfeit any rights if any, he may have against the Supplier if:

17.1.1. The Goods are applied for any other use to which the Goods are not intended for and/or not in accordance with any applicable manual;

17.1.2. Any alteration to the Goods is carried out other than in accordance with intended alterations and/or the Goods are not repaired by an authorised repairer.

17.2. The Customer further acknowledges sole responsibility for any damage or injury to property or person caused by using the Goods in any way and shall indemnify in full the Supplier, its servant and its agents in relation to all such claims.

18. DISPUTE RESOLUTION

18.1. All disputes between the Supplier and the Customer in connection with:

18.1.1. This Agreement; and

18.1.2. Any warranty given by the Supplier to the Customer under this Agreement or otherwise in relation to the Service or the Goods, (**Dispute**) will be dealt with in accordance with this clause 18 whenever the Dispute is raised.

18.2. Any party (**Disputing Party**) may within 30 days after the Dispute arises, give a notice to the other party:

18.2.1. Setting out details of the Dispute, the reason the Dispute should be resolved in favour of the Disputing Party and any other matter that may, in the reasonable opinion of the Disputing Party, be relevant to the resolution of the Dispute; and

18.2.2. Requiring the other party to, in good faith, discuss and negotiate the Dispute with the Disputing Party to resolve the Dispute within 28 days of the date of the notice.

18.3. If the Dispute is then not resolved within 28 days, then the Supplier may provide the Customer with a further notice referring the Dispute either to mediation, or determination (**Determination**) by an independent expert (**Expert**).

18.4. The Supplier may provide a notice referring the Dispute to Determination if the Dispute is not resolved at mediation.

18.5. Any mediator or independent expert will be mutually agreed (or failing agreement within 7 days of the Supplier proposing mediation or Determination, then the mediator or expert will be nominated at the request of any party by the President of the Law Society of South Australia).

18.6. If the Supplier proposes mediation or Determination, then the Customer agrees to request an adjournment of any Court or Tribunal proceedings for at least 120 days to allow mediation or Determination to occur.

18.7. For any Determination:

18.7.1. The Expert is an expert and not an arbitrator;

18.7.2. The Determination is final and binding on the parties; and

18.7.3. The proceedings for the purposes of the Determination will be conducted in accordance with the laws of evidence.

18.7.4. The parties may make submissions which the Expert must take into account when making the Determination;

18.7.5. The Expert must provide its Determination to the parties in writing, with reasons for the Determination and within 21 days of the appointment of the Expert; and

18.8. Unless otherwise agreed by the parties in writing:

18.8.1. The place of the proceedings for the purposes of the mediation or Determination will be Adelaide, South Australia;

18.8.2. Each party is entitled to legal representation at all stages of the mediation or Determination;

18.8.3. Each party will bear its own costs and expenses in relation to the mediation or Determination;

18.8.4. The parties will pay in equal shares the mediator or Expert's fees and expenses and the cost of the mediation or Determination including room hire (if any); and

18.8.5. The provisions of the *Commercial Arbitration Act 1986* (SA) do not apply to the resolution of any Dispute under the provisions of this clause 18.

19. JURISDICTION

19.1. This Agreement is deemed to be made in the State of South Australia and all disputes hereunder shall be determined by the appropriate courts of South Australia.

20. PRIVACY ACT 1988

20.1. The Customer and/or the Guarantor/s agrees;

20.1.1. For the Supplier to obtain from a credit reporting agency a credit report containing personal credit information about the Customer and Guarantor/s in relation to credit provided by the Supplier.

20.1.2. That the Supplier may exchange information about the Customer and the Guarantor/s with those credit providers either named as trade referees by the Customer or named in a consumer credit report issued by a credit reporting agency.

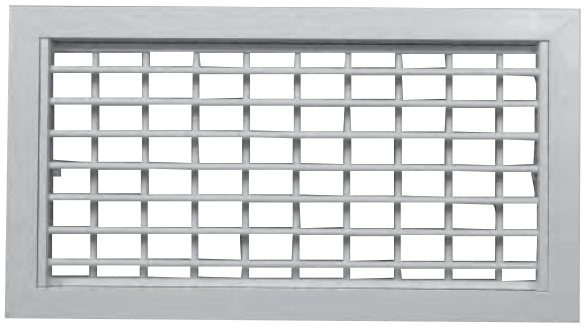
20.1.3. The Customer consent to the Supplier being given a consumer credit report to collect overdue payment on commercial credit (Section 18K (1)(h) *Privacy Act 1988*).

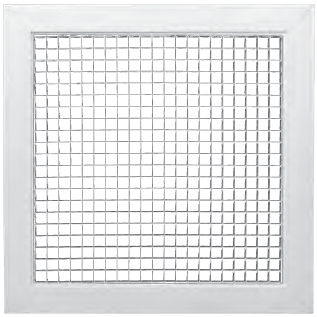
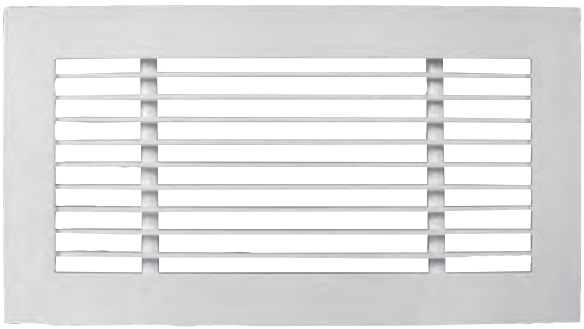
21. AGREEMENT

21.1. This Agreement can only be amended in writing signed by each of the parties.

21.2. All prior discussions and negotiations are merged within this document and the Supplier expressly waives all prior representations made by him or on his behalf that are in conflict with any clauses in this document in any way.

21.3. Nothing in these Terms and Conditions is intended to have the effect of contravening any applicable provisions of the *Competition and Consumer Act 2010* or the *Fair Trading Acts* in each of the States and Territories of Australia.


LONSDALE	**15**-19 Roxburgh Av	P: 08 8307 2300	F: 08 8307 2305
SALISBURY	72-78 Willochra Rd	P: 08 8182 0777	F: 08 8182 0705
WELLAND	**99**-101 Frederick St	P: 08 8116 3600	F: 08 8116 3605
DARWIN	1**16** Winnellie Rd	P: 08 8984 6800	F: 08 8984 6805
BRISBANE	7/29 McCotter St	P: 07 3714 8900	F: 07 3714 8905

ADA
AIR DIFFUSION AGENCIES

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