



AIRONIX

'U name it, V make it'

AIRONIX STEEL & ALUMINIUM WORKS



ISO 9001:2015 Certified

AIR DIFFUSERS

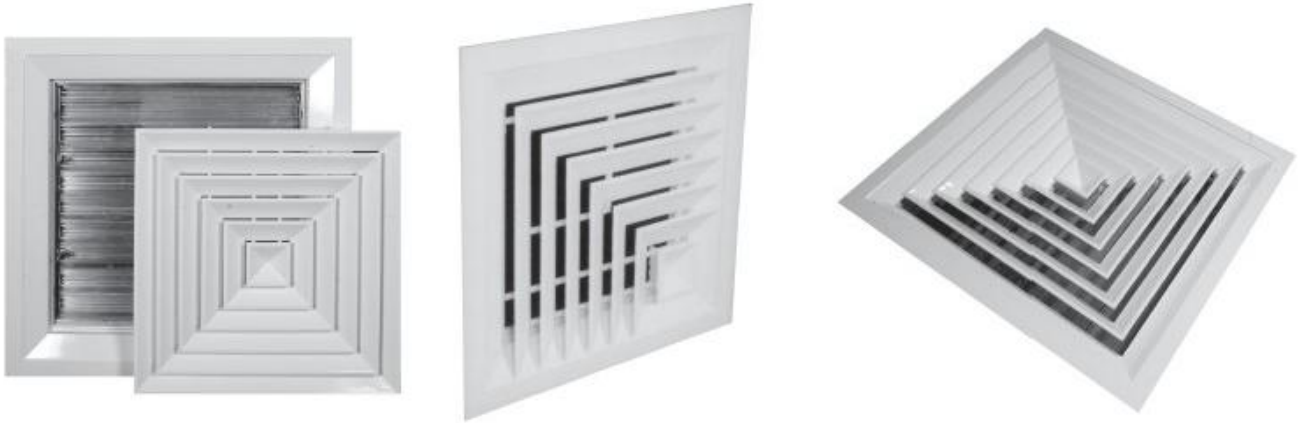
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SQUARE CEILING AIR DIFFUSERS

LOUVERED FACE, MULTI DIRECTIONAL WITH REMOVABLE CORE

AIRONIX ceiling / multi directional diffusers represent an optimum solution for the diffusion of air from ceiling in modern concept areas with a high use of extruded aluminium with which thanks for their precise line they harmonize perfectly. The different shape of the cones (core) in respect of the number of the air flows (1,2,3 & 4 ways) can itself create an aesthetic element to be utilized.



Features and characteristic:

- Material: - Frame and Inner cones (core) are made of Extruded Aluminium profile of 6063 Alloy by which allows the diffuser to be suitably used for both internal and external applications.
- Both frame & inner cones (core) have a general wall thickness of 1.2mm (± 0.2 mm tolerance).
- Available in both square and round shape.
- Units are flush mounted and available with different pattern arrangements 1,2,3 & 4ways. (i.e. different ways of air discharge directions.)
- Available in wide variety of standard neck sizes ranging from 150 X 150 up to 600 X 600 mm in 75 mm increments
- The inner cones (Core) is fully removable to provide easy:
 - Installation
 - Adjustment of key operated OBD
 - Maintenance
 - Core exchange by different pattern in future

The core is held in place & fixed to the frame by two loaded spiral galvanized steel springs.

- The ceiling diffuser projects from the mounting surface by 5mm.
- Recommended for use in rooms with ceiling heights ranging from 2.5m to 4.0m.
- Figures are in CFM

OPERATING RANGE & QUICK SELECTION TABLE FOR SQUARE DIFFUSER (MODEL 1,2,3 & 4WS)							
SIZE		NOISE LEVEL					
MM	Inch	MIN.	<25	>25	<30	>30	40
150 X 150	6" X 6"	50	145	150	175	-	-
225 X 225	9" X 9"	110	280	285	330	-	-
300 X 300	12" X 12"	200	485	490	550	555	-
375 X 375	15" X 15"	310	615	620	715	720	954
450 X 450	18" X 18"	450	700	705	800	805	1246
525 X 525	21" X 21"	600	950	955	1070	1075	1526
600 X 600	24" X 24"	795	1090	1095	1390	1575	1992

SQUARE CEILING AIR DIFFUSERS

LOUVERED FACE, MULTI DIRECTIONAL WITH REMOVABLE CORE

Pattern selection:

The pattern selection is determined by the shape of the space to be conditioned, the number of diffusers in it and the type and location of the lighting fixtures or other devices mounted on the same ceiling.

For example: A Two-way square diffuser, opposed throw type Model 2WS-O might be used in a corridor area. On the other hand, a larger area can often be divided into square or rectangles of nearly equal area, if a diffuser can be located in the center of each of these areas, a pattern of Model 4WS (for square areas) or 4WR (for rectangular areas) could be used for four-way discharge.

Selection Procedure:

Having established the position where terminal can be sited, refers to data showing core pattern details and select the suitable core pattern required.

Knowing the air volume and throw for each diffuser in question then check:

- Recommended limit of air flow rate for each diffuser direction according to ceiling height with throw of air required lying between the max. and min. values.
- Note noise level from performance data diagram and check the same with Noise Level recommendations table.
- Determine the total pressure drop from performance data.



Ceiling Height (M) ^o	Max. Flow Rate For each Diffuser Direction (L/S)	Max. Cooling Differential Δ (°C)
2.5	100	11
3.0	200	13
3.5	350	15
4.0	500	16

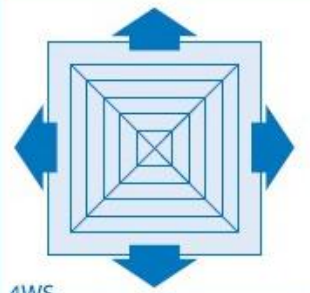
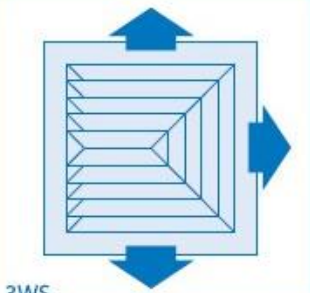
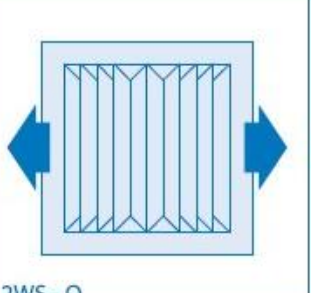
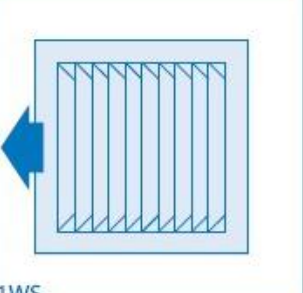
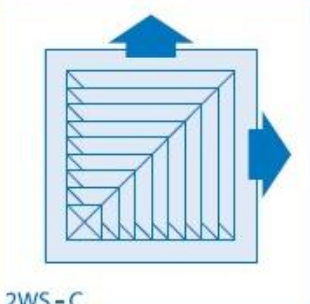
SQUARE CEILING AIR DIFFUSERS

LOUVERED FACE, MULTI DIRECTIONAL WITH REMOVABLE CORE

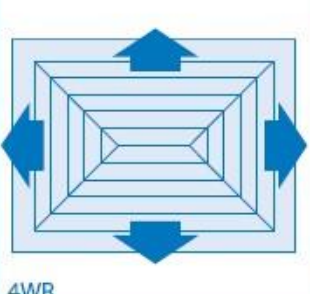
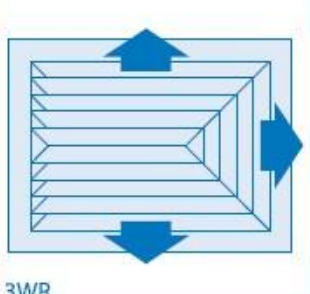
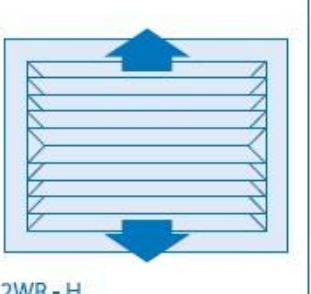
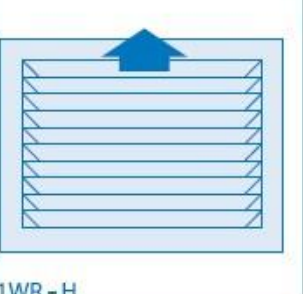
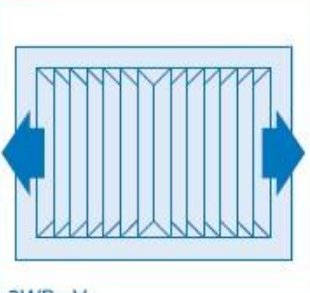
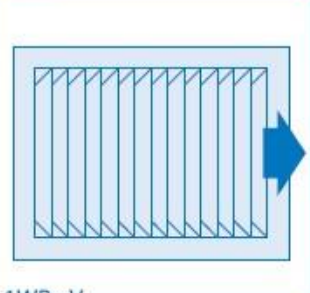
DIFFERENT CORE PATTERN ARRANGEMENTS FOR BOTH SQUARE & RECTANGULAR DIFFUSERS

- 4 Way - Discharge
- 3 Way - Discharge
- 2 Way - Discharge
- 1 Way - Discharge

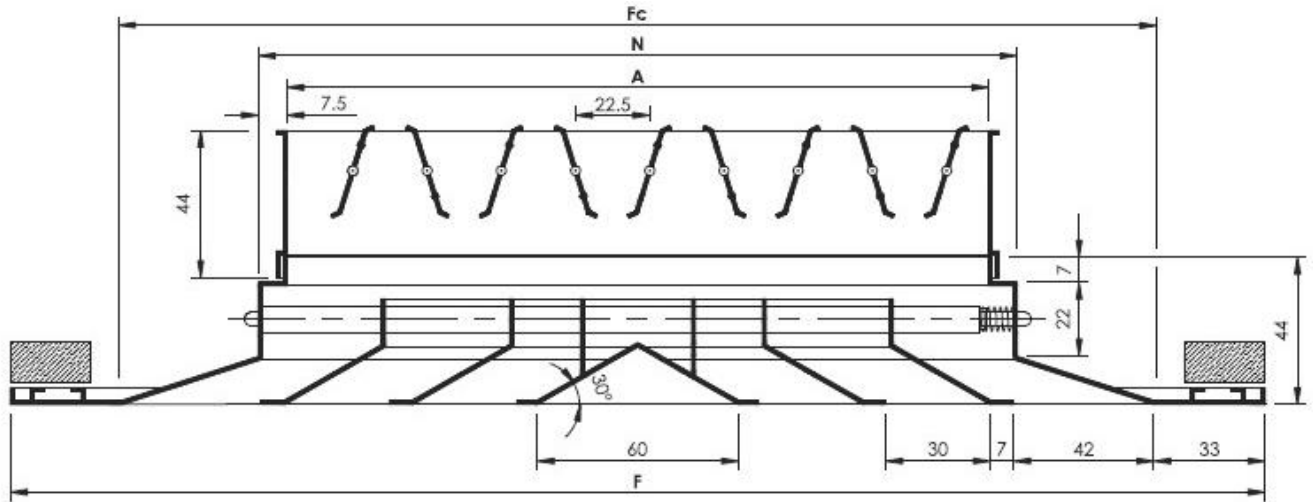
SQUARE DIFFUSERS

 4WS	 3WS	 2WS-O	 1WS
 2WS-C		<p>MODELS :</p> <p>4WS : 4 Way Square Diffuser. 3WS : 3 Way Square Diffuser. 2WS-O : 2 Way Square Diffuser,Opposed Blades. 2WS-C : 2 Way Square Diffuser,Corner Blades. 1WS : 1 Way Square Diffuser.</p>	

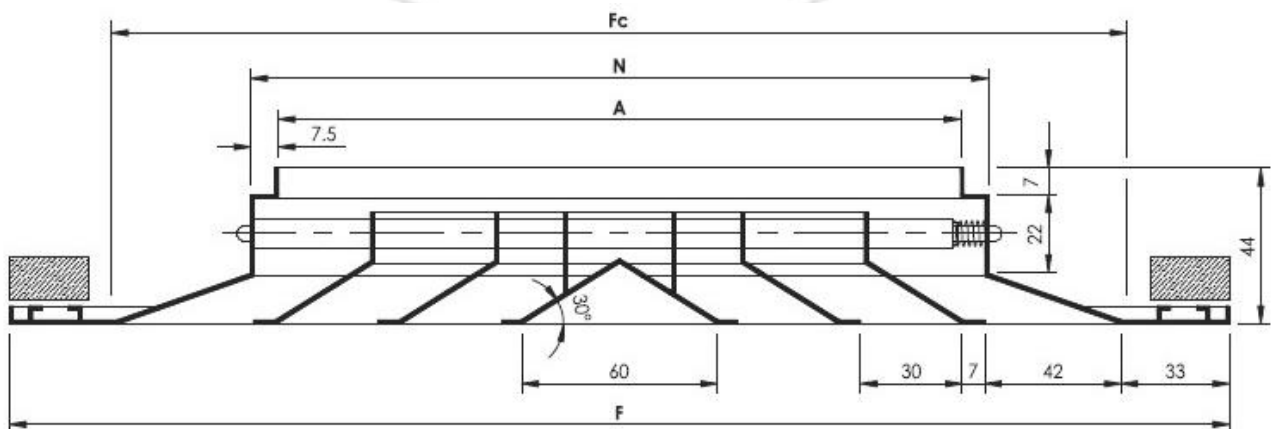
RECTANGULAR DIFFUSERS

 4WR	 3WR	 2WR-H	 1WR-H
 2WR-V	 1WR-V	<p>MODELS :</p> <p>4WR : 4 Way Rectangular Diffuser. 3WR : 3 Way Rectangular Diffuser. 2WR-H: 2 Way Rectangular Diffuser,Horizontal Blades. 2WR-V: 2 Way Rectangular Diffuser,Vertical Blades. 1WR-H: 1 Way Rectangular Diffuser,Horizontal Blades. 1WR-V: 1 Way Rectangular Diffuser,Vertical Blades.</p>	

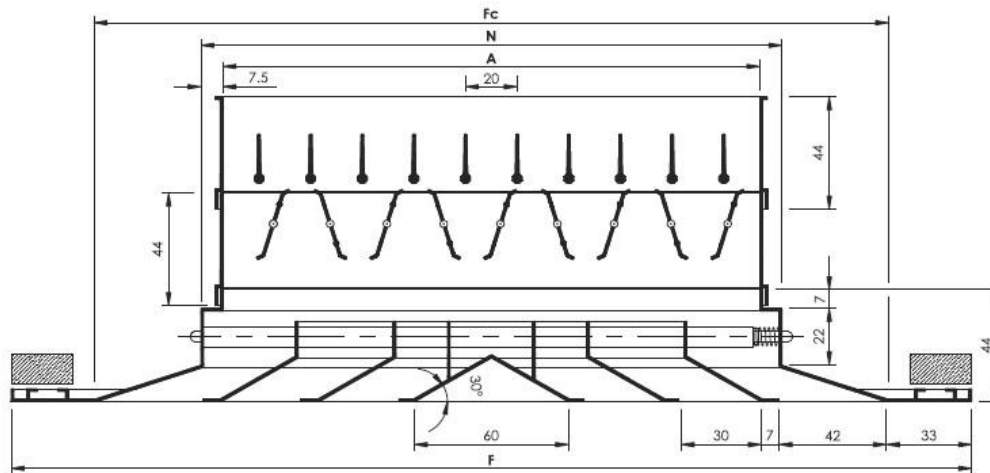
Square Diffuser – Model 4WS Construction and Dimensional Details



- Diffusers called Supply Air Diffuser and coded as SAD are always equipped with Opposed Blade Damper (provided as standard).
- Unless otherwise specified, Diffusers called return, Extract or Exhaust Air Diffuser and coded as RAD or EAD are usually supplied w/o Opposed Blade Damper as a standard.
- In some cases, RAD or EAD are required with Opposed Blade Damper, this will be provided as an option. These are Supply Air Diffuser or SAD
- All Dimension are in mm and subject to \pm mm tolerance.



Square Diffuser – Model 4WS Construction and Dimensional Details



- The Equalizing Grid is available on request as an option.
- The assembly of Equalizing grid with the diffuser provides uniform air flow and distribution over the neck of the diffuser which ensures reduction in pressure losses, noise level and turbulence.
- The blades spaced on 20mm centers, help to control the air flow in a linear manner.
- Individually adjustable blades allow minor adjustment of air flow and additional control when required (Blades can be deflected into different degree).

The 18" X 18" diffuser can be replaced on false ceiling with modules of 600 X 600 mm panel.

- Other sizes are available on request.
- All dimensions are in mm and subject to \pm mm tolerance.

NECK AND OVERALL DIMENSION FOR SQUARE DIFFUSER

(N) NOMINAL LISTED/SIZE		(A) ACTUAL NECK SIZE	(F) OUTER FRAME SIZE	(FC) FALSE CEILING OPENING
MM	Inch	mm	mm	mm
150 X 150	6" X 6"	135 X 135	297 X 297	233 X 233
200 X 200	8" X 8"	185 X 185	347 X 347	283 X 283
225 X 225	9" X 9"	210 X 210	372 X 372	308 X 308
300 X 300	12" X 12"	285 X 285	447 X 447	383 X 383
375 X 375	15" X 15"	360 X 360	522 X 522	458 X 458
450 X 450	18" X 18"	435 X 435	597 X 597	533 X 533
500 X 500	20" X 20"	485 X 485	647 X 647	583 X 583
525 X 525	21" X 21"	510 X 510	672 X 672	608 X 608
600 X 600	24" X 24"	585 X 585	747 X 747	683 X 683

CIRCULAR ROUND SHAPED CEILING DIFFUSERS

The circular or Round Diffuser can provide an alternative to conventional square or rectangular diffuser for both ceiling supply and extract applications. Mounted on exposed duct-work or flush with a conventional ceiling and offering an attractive appearance, these Omni directional diffusers, with their aerodynamic profile, are capable of handling high air volumes at comparatively low sounds levels and give a smooth even distribution of air. Circular Ceiling Diffusers are available in field adjustable air pattern consists of a conical designed inner core to provide three adjustable positions. For example, at the full vertical position, it provided an unusually long downward projection serving high ceiling areas of variable conditions.

Features & Characteristics:

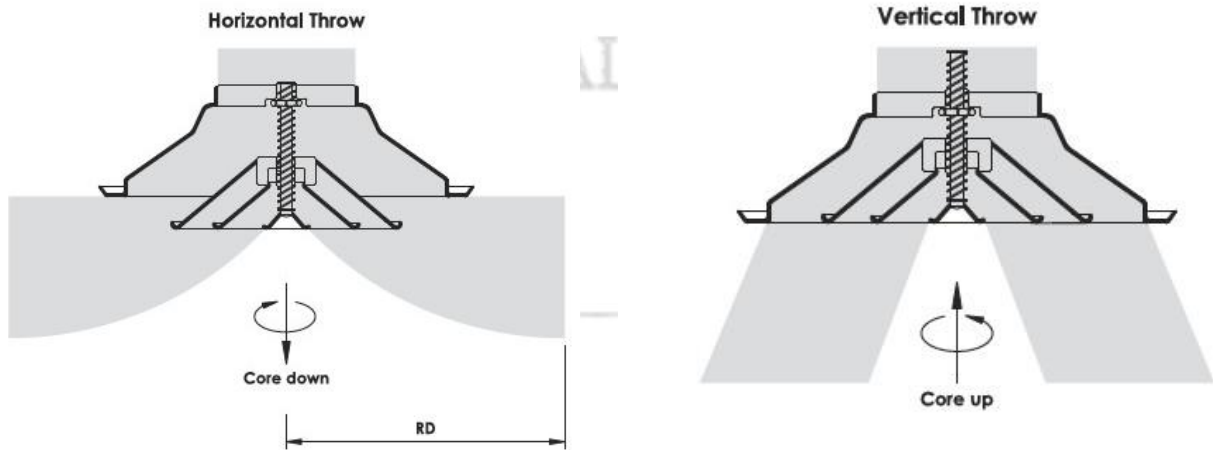
- Construction: - Frame & inner cones (core) are of pressed aluminium sheet construction.
- Damper (Butterfly type) construction Steel sheet in matt black powder coating finish.
- Circular / Round Diffusers are one of the best solutions for ceiling air diffusion in air conditioning system suitable for large offices, commercial and shopping centers, industrial buildings, warehouses, cinemas,.....etc. the high induction rate, extremely silent operation and low pressure drops assure optimum performance and a high level of ambient comfort.
- The inner cones (core) are in conical shape, Omni directional air discharge, modern styling and removable allowing for easy installation, balancing, cleaning, damper adjustment and access to duct system.
- Wide step-down cones (core) overlap with each other for efficient draft free diffusion. Especially designed outer ring (frame) helps to reduce ceiling smudge.
- Expanded cones feature gives a high degree of mixing of primary and secondary air that provides excellent air distribution and efficiency.
- Just by adjusting the position until it reaches its stop point is allowing for maximum vertical throw, in reverse the same can be lowered to "DOWN" position allowing for maximum horizontal throw.
- Available in 8 standard neck sizes ranging from 150 mm \varnothing up to 500 mm \varnothing in 50 mm increments.
- Consists of 2 inner cones for 150 and 200 mm \varnothing size and 3 inner cones for other sizes.
- Butterfly damper: Matt black powder coated, allows adjustment from the face side of the diffuser.
- Sponge Gasket to reduce air filtration and diffuser rattling is added around the outer ring as an option with extra cost.



ROUND CEILING AIR DIFFUSERS

CIRCULAR ROUND SHAPED CEILING DIFFUSERS		
Size (Inch)	Size(mm)	CFM Range
6" Dia	150	50-300
8" Dia	200	100-550
10" Dia	250	150-850
12" Dia	300	200-1200
14" Dia	350	300-1700
16" Dia	400	400-2200
18" Dia	450	550-2800

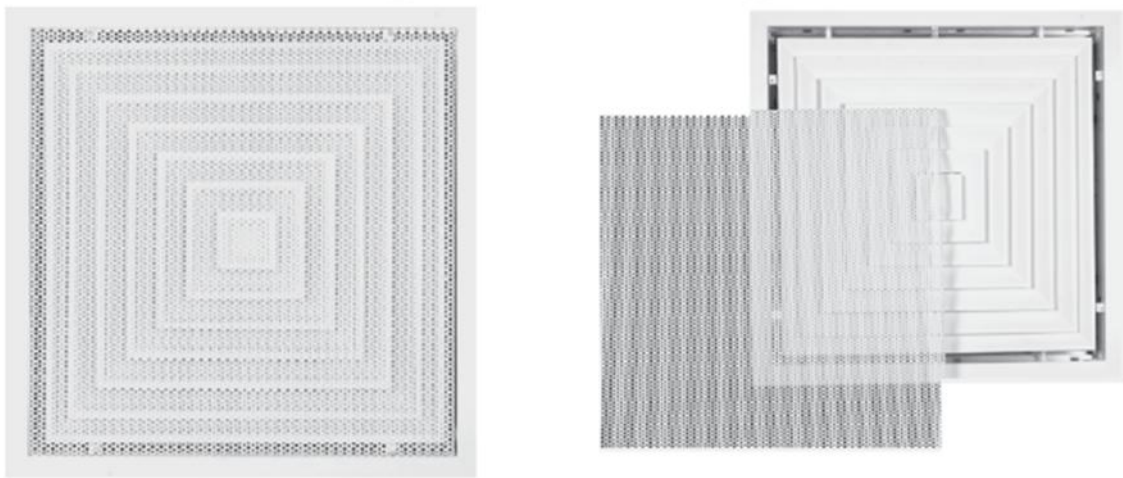
- To obtain the maximum vertical throw, turn the central core to "up" position.
- To obtain the maximum horizontal throw, turn the central core to "DOWN" position.
- Radius of Diffusion (RD): The horizontal axial distance an airstream travels after leaving the circular diffuser before the maximum stream velocity is reduced to a specified terminal level.



AIRONIX perforated Diffusers provides a modern silent and draft free range of diffusers designed to blend effectively with modern ceiling styles and profiles. Offering excellent uniform air distribution patterns, the unit comprises of an extruded aluminium frame with a perforated steel sheet face, 50% free area and square cones (core) concealed behind the perforated face positioned to give 4,3,2 or 1-way discharge as required for the supply units. While return, extract or exhaust units are normally supplied without this feature for straight forward extract application.

These diffusers have high diffusion induction rates, resulting in rapid temperature and velocity equalization of the mixed air mass before the supply air enters the occupied space.

As an alternative use also perforated diffusers have been designed to meet architectural requirement as to appearance, module size or other aesthetic considerations.



Features & Characteristic:

- Construction: Frame & inner cones (core) are made of high quality Extruded Aluminium profile of 6063 Alloy.
- Frame Flange width: 30 mm
- Perforated Face: made of G.I. Perforated sheet of 0.8 mm thickness with 4 mm \varnothing perforated at a pitch of 6 mm to produce 50% free area.
- Units are flush mounted available with different pattern arrangements 4,3,2 & 1 way (i.e. different ways of air discharge direction).
- Available in wide variety of square neck sizes ranging up to the most popular used 600 X 600 mm module with 595 X 595 mm outer frame size making it suitable for standard false ceiling panel replacement.
- The perforated screen shall be removable from the diffuser face and fitted with screws to facilitate the removal of face screen to provide easy access to:
 - Installation.
 - Adjustment of key operated OBD.
 - Maintenance and cleaning.
 - Core exchange by different pattern in future.

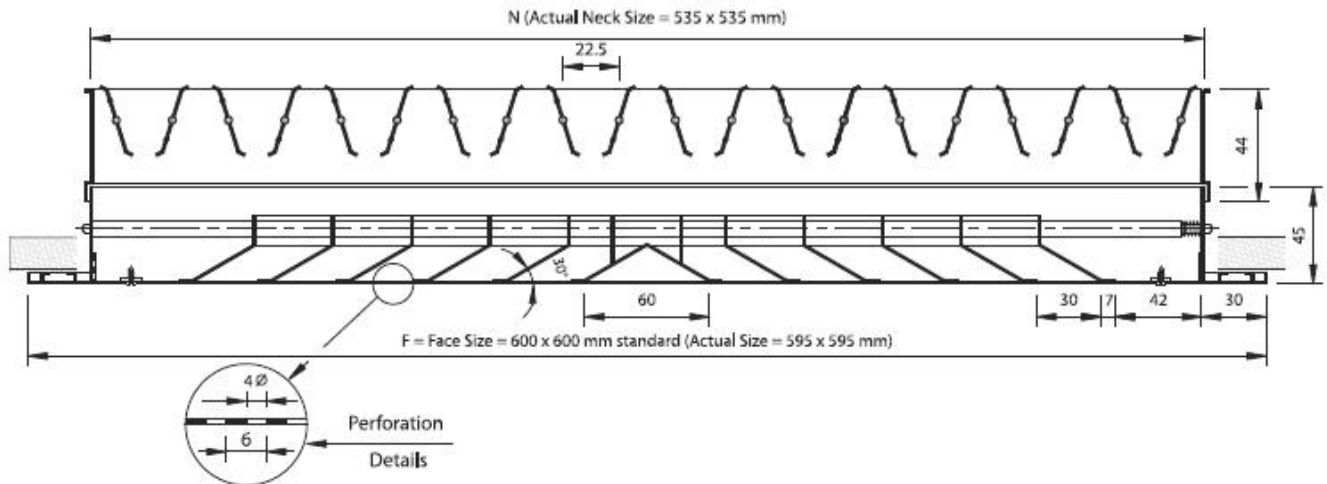
The core is held in place and fixed to the frame by two loaded spiral galvanized steel spring.

- For a better supply air mixing, increase of throw and induction, more sound containing and easy connection to duct system, G.I Neck adaptor is available as an option.
- Perforated diffusers project from the mounting surface by 5 mm.

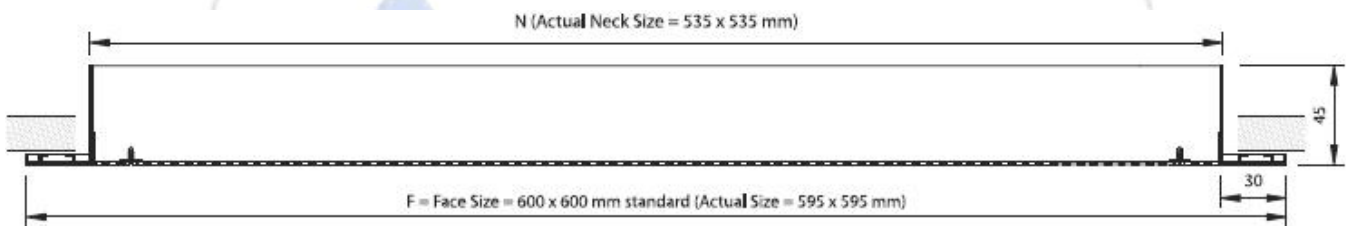
Models

Construction and Dimensional Details

Model PSCD 4 WS, Standard Module 600 X 600 mm Face Size

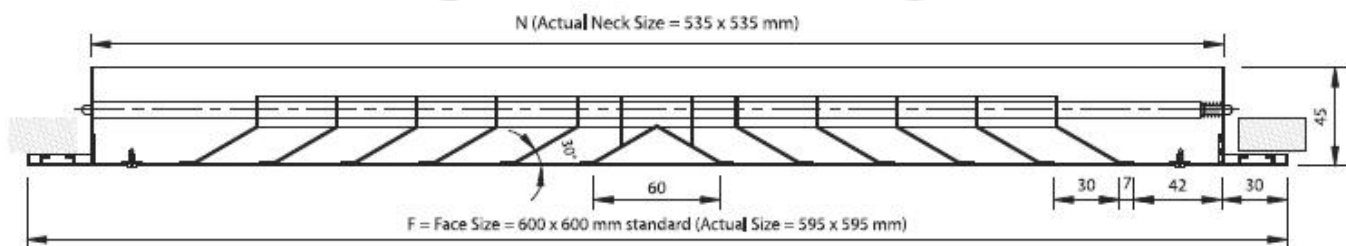


Model PRCD 4 WS, Standard Module 600 X 600 mm Face Size



- Unless otherwise specified, diffusers called perforated return, Extract or Exhaust Ceiling Diffuser and Coded as PRCD are normally supplied w/o inner core and Opposed Blade Damper as standard to ensure straight forward extract application.

Model PRCD 4 WS, Standard Module 600 X 600 mm Face Size



- In some cases, Return, Extract or Exhaust Perforated Ceiling Diffuser are required with inner core (4-way pattern), this will be supplied on request only as an option.

- Other sizes and models are available on request
- All Dimensions are in mm and subject to ± 1 mm tolerance.

PLAQUE CEILING AIR DIFFUSERS



AIRONIX plaque diffuser satisfies architectural as well as engineering criteria. Its strong, clean, unobtrusive lines harmonize with the ceiling system, without sacrificing performance.

The architectural plaque diffusers feature a 4-way horizontal ceiling pattern effective for cooling applications where a clean ceiling appearance is required. The plaque diffuser is an excellent choice for variable air volume systems. The air pattern remains tight and horizontal for effective room air distribution, even when the volume varies over a wide range.

FEATURES:

- The Frame & Core are made of high quality extruded Aluminium Profile with advantages of corrosion resistance and rigidity.
- Full face diffuser
- Plaque face is removable without the use of tools.
- Discharge air equally in four horizontal directions.
- Flat Margin Style.
- Maintain true 360-degree horizontal pattern.

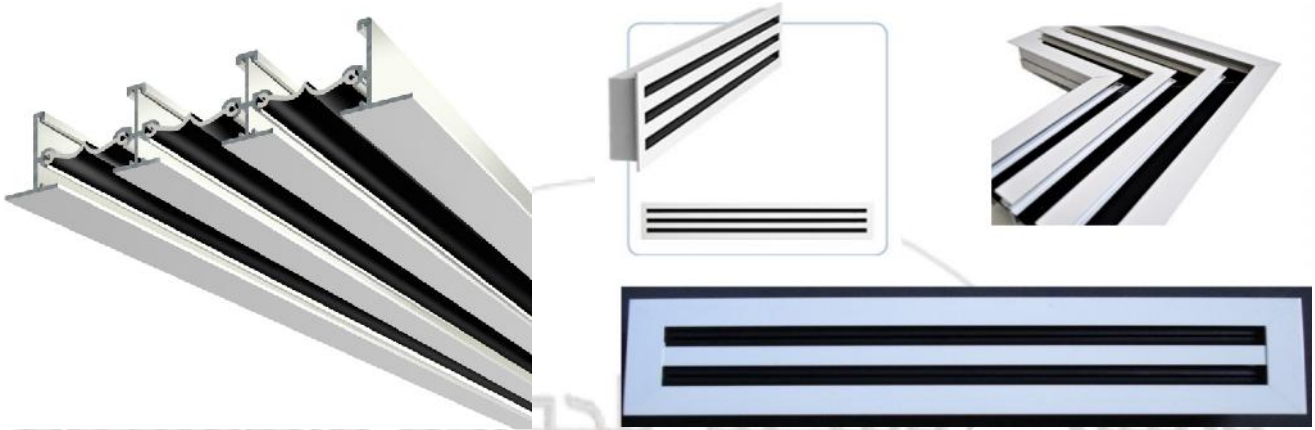
FINISH

- Natural aluminium anodized finish.
- Standard finish is white powder coated.
- Other finish is available as option.

(Available sizes are similar to Square Air Diffuser sizes)

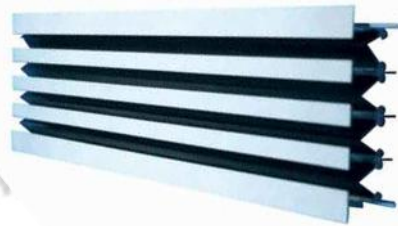
LINEAR SLOT DIFFUSERS

AIRONIX Linear Slot Diffusers have been designed to satisfy architectural concepts that require continuous length application without compromising air distribution performance. A combination of engineering excellence and architectural appeal in a single product is provided in this type of units. Linear slot diffusers for supply air application are usually installed in ceiling or high side wall locations, the design of these units features an adjustable supply air pattern and makes them particularly suitable for open office perimeter zones, main floor entrance foyers and lobbies, elevator lobbies, conference rooms, mall atriums and theatres.



Features & Characteristics:

- Construction: Frame, Core & Deflection Blades are made of high quality extruded Aluminium Profiles of 6063 Alloy.
- Hit – and – Miss Damper Material: made of pre-painted aluminium coils of Alloys in matt black color finish.
- Frame Flange Width: 20 mm.
- Available in 1 to 8 Number Slots.
- Available in 3 different sloth widths (openings):
 - 20 mm (3/4") as standard.
 - 16 and 25 mm (5/8" & 1") as option.
- The design of linear slot diffusers provides a full flexibility in volume and air pattern control.
- The Volume Control Damper (HIT & Miss Damper) installed in rear part of the linear slot diffuser consist of two aluminium strips, the rear one is fixed and the other one is sliding.
- Both the Hit and Miss strips are having 10 X 10 mm square holes. Adjacent are spaced in 10 mm distance also.
- Manually and from the slot face opening, the air flow rate can be adjusted by moving the sliding part of the Hit and Miss damper Left or Right.
- The Volume Control Damper (Hit and Miss Damper) is designed in a unique way that it can be used as an equalizing grid.
- Air pattern can be directed vertically or horizontally by means of Deflection Blades in fully 180° range without changing the air flow rate. These blades can be manually adjusted from slot face opening.
- The adjustable Deflection Blade allow for the air pattern to be directed along the ceiling, straight down or at some intermediate setting.
- To maintain perfect and unbroken appearance for continuous runs, alignment joining strips are provided in proper lengths and quantities with no extra cost.
- Also, End Cap pieces to be provided in proper sizes as requested with no extra cost.
- **SLD – Supply Linear Diffuser** • **RLD – Return Linear Diffuser** • **CLD – Combined Linear Diffuser**



LINEAR SLOT DIFFUSERS

OPERATING RANGE & QUICK SELECTION TABLE FOR LINEAR SLOT DIFFUSERS

SLOT OPENING = 16 MM			SLOT OPENING = 20 MM (STANDARD)			SLOT OPENING = 25 MM		
No. of Slots	CFM Range		No. of Slots	CFM Range		No. of Slots	CFM Range	
1	50	74	1	70	95	1	85	127
2	95	136	2	119	170	2	155	229
3	125	191	3	165	248	3	252	318
4	163	254	4	212	316	4	265	413
5	201	290	5	259	371	5	345	519
6	248	339	6	314	424	6	403	583
7	271	381	7	350	519	7	473	678
8	297	424	8	386	562	8	530	742

- CFM Values are based on:
 - Length of one meter.
 - Noise Level ranging from 15-25(dB).
 - Vertical Discharge without wall effect.

NO. OF SECTION PER UNIT

No. of Slots	ONE SECTION	TWO SECTION	MULTI SECTION
1	4.0	>4.0	>6.0
2	4.0	>4.0	>6.0
3	4.0	>4.0	>6.0
4	4.0	>4.0	>6.0
5	3.5	>3.5	>6.0
6	3.5	>3.5	>6.0
7	3.5	>3.5	>6.0
8	3.5	>3.5	>6.0

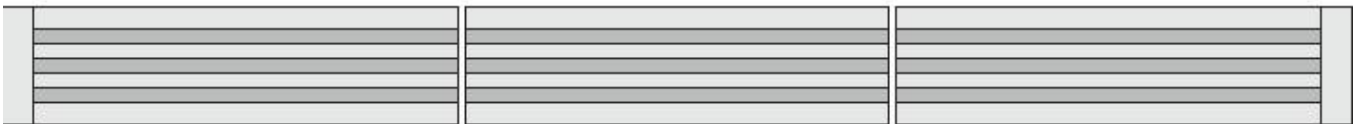
- Above arrangement are approximate and subject to change according to order / site conditions.

End Cap / Flange Arrangements

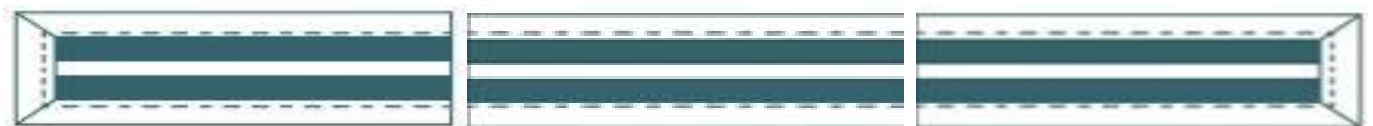
Straight End Cap at one Side

Open ends

Straight End cap at both sides



End Cap at Both Terminal Sides (Multi Sections)



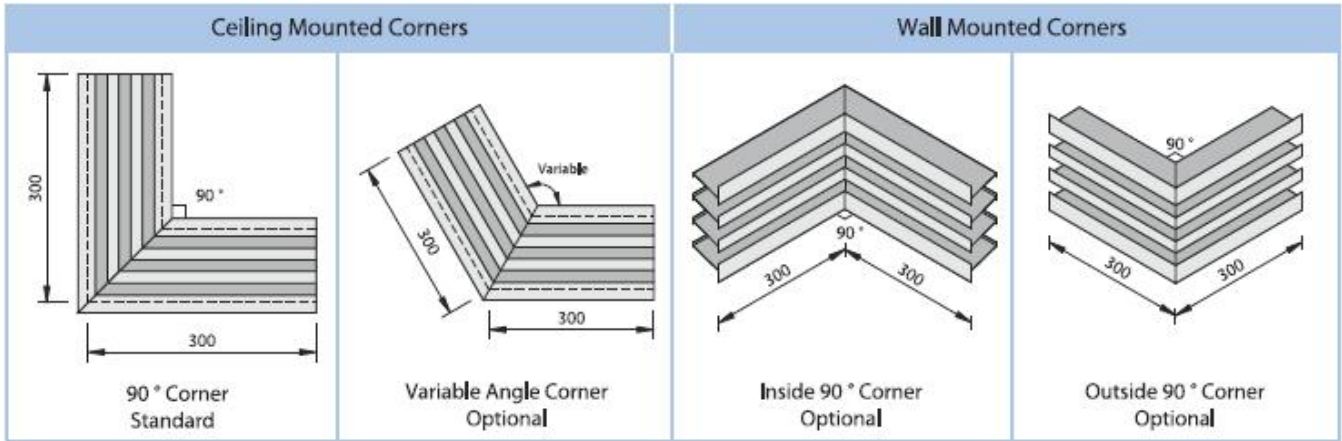
45° End Cap at one Side

Open ends

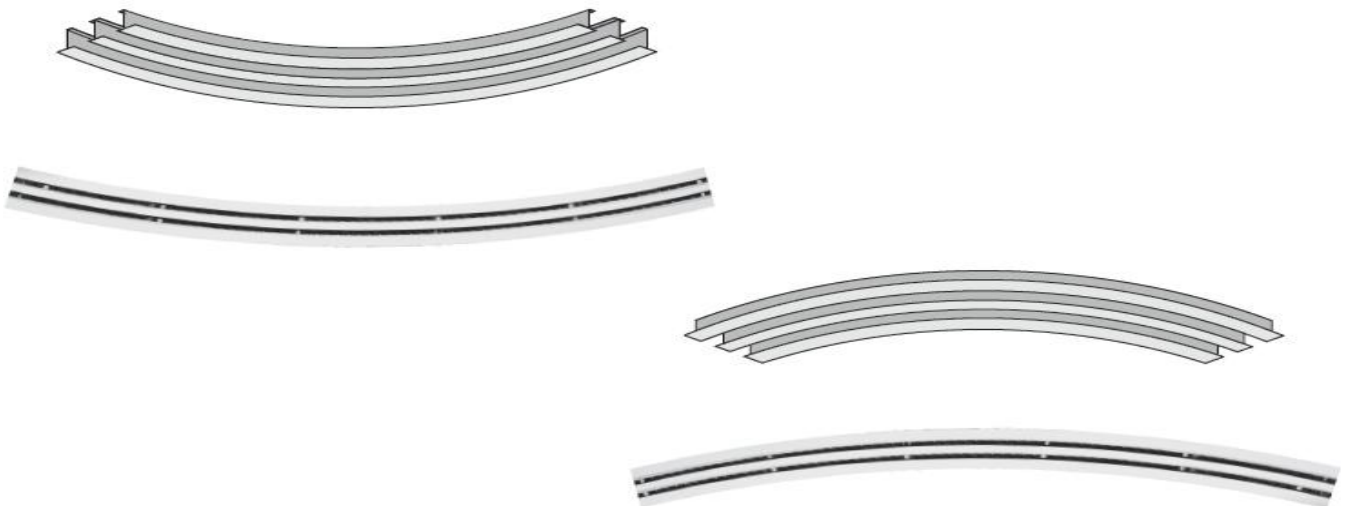
45° End Cap at both sides

MITERED CORNERS

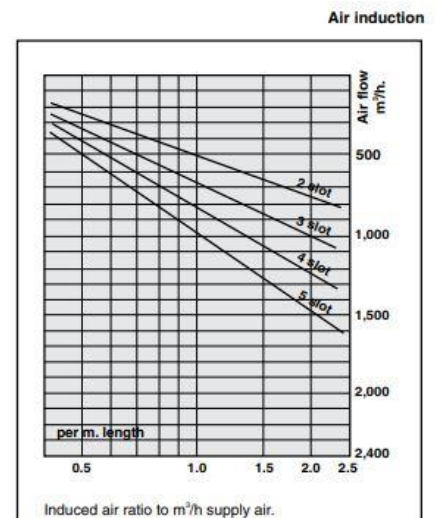
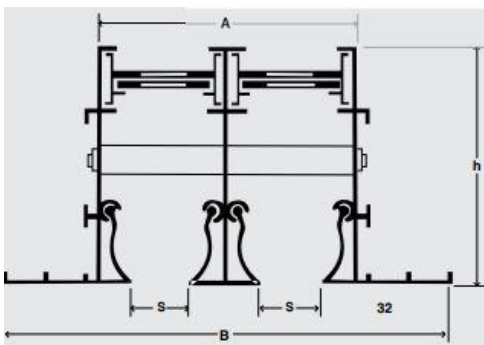
- Corners are always supplied in 300 mm adjacent sides as standard unless otherwise specified or required.



Linear Slot Diffusers in Curved Shape



- Curves can be fabricated in minimum curvature radius = 1 mtr.
- Curve applications are not possible for side wall installments.



HIDDEN LINEAR SLOT DIFFUSERS

ورشة ايرونيكس للحداة والالمنيوم

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The **AIRONIX** Hidden linear Slot Diffuser Model HLD is mainly designed to install above the gypsum ceiling for frameless architectural view. The slot diffuser can be installed individually in a set length or in a continuous line. Continuous run can consist of a combination of active and inactive sections as well as combining supply and return air applications.

The modules are available with standard 20mm or 25mm slot with the number of slots ranging from 1 to 6 slots and are available as fixed core. They can also be installed in any type of ceiling application.

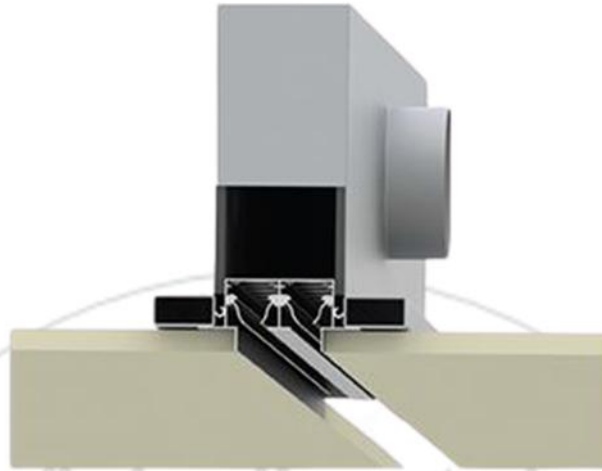
The Air pattern control is adjustable from the diffuser face and is achieved by means of an adjustable pattern control with each slot, enabling a full 180° air pattern adjustment that provides draft free comfort for both heating and cooling applications.

Construction is from extruded Aluminium and the recommended maximum length for each individual section in 3 meters. Standard finish is powder coat white while other finishes are available to suit the interior and architectural design requirements.



HIDDEN LINEAR SLOT DIFFUSERS

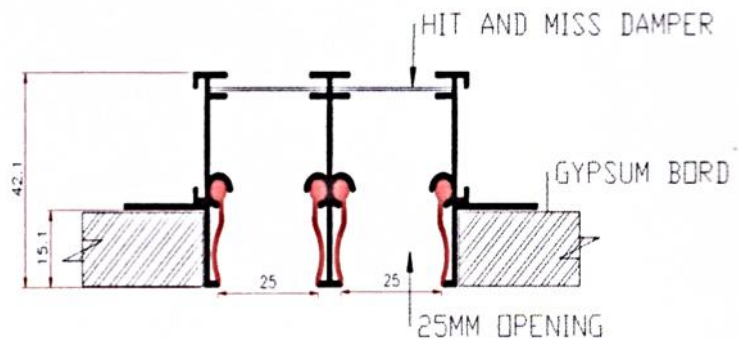
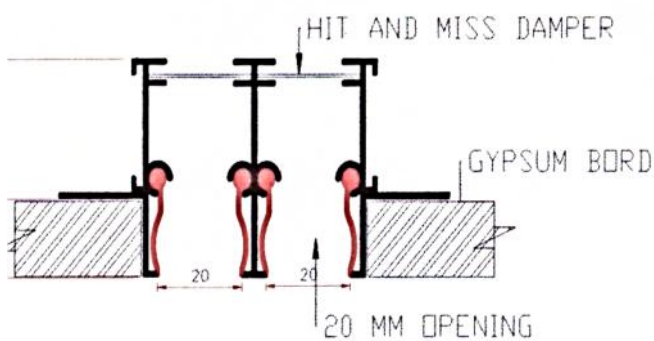
Fixed core Linear Model HSLD/HRLD



ورشة ايرونكس للحداة والالمنيوم

SIZES AVAILABLE

No. of Slots	20 MM SLOT			25 MM SLOT		
	NECK SIZE	FACE SIZE	BOX SIZE	NECK SIZE	FACE SIZE	BOX SIZE
1	35	27	45	41	33	51
2	60	54	70	75	66	85
3	88	80	98	108	100	118
4	113	108	123	141	134	151
5	139	133	149	175	167	185
6	145	159	155	205	201	215



HIDDEN LINEAR SLOT DIFFUSERS

Linear Slot Diffuser – Horizontal Projection with Ceiling Effect

HSLD / HRLD 20MM SLOT

NO OF SLOTS	TOTOAL PRESURE (pa)	<10	20	40	60	80
1	L/S per metre	26	38	52	70	84
	Horizontal throw (m) (0.25m/s terminal velocity)	1.2	2.8	4.2	6	7.1
	NR Sound Power Level (dB)	15	25	31	38	42
2	L/S per metre	50	78	108	140	165
	Horizontal throw (m) (0.25m/s terminal velocity)	2.6	4.9	6.8	9	10.5
	NR Sound Power Level (dB)	17	28	35	41	46
3	L/S per metre	78	118	160	209	260
	Horizontal throw (m) (0.25m/s terminal velocity)	3.6	6.4	8.8	11.1	13.2
	NR Sound Power Level (dB)	19	30	37	43	49
4	L/S per metre	100	160	222	300	350
	Horizontal throw (m) (0.25m/s terminal velocity)	4.6	7.5	10.2	13.4	15.2
	NR Sound Power Level (dB)	20	32	38	45	52
5	L/S per metre	130	195	274	350	412
	Horizontal throw (m) (0.25m/s terminal velocity)	5.3	8.6	11.3	14.1	16.8
	NR Sound Power Level (dB)	22	33	39	46	55
6	L/S per metre	151	240	325	416	510
	Horizontal throw (m) (0.25m/s terminal velocity)	6.1	9.5	12.8	16	18.1
	NR Sound Power Level (dB)	24	33	40	49	58

ACTIVE LENGTH CORRECTION TABLE

DIFFUSER ACTIVE LENGTH (M)	THROW MULTIPLIER	SOUND LEVEL CORRECTION
0.4	0.6	-4 dB
0.5	0.7	-3 dB
1	1	0
1.5	1.15	-2 dB
2	1.25	-3 dB
3.0+	1.3	-5 dB

*The active length correction table can be used to determine the throw at different active length

HIDDEN LINEAR SLOT DIFFUSERS

Linear Slot Diffuser – Horizontal Projection with Ceiling Effect

HSLD / HRLD 25MM SLOT

NO OF SLOTS	TOTOAL PRESURE (pa)	<10	20	40	60	80
1	L/S per metre	28	43	60	80	93
	Horizontal throw (m) (0.25m/s terminal velocity)	1.2	3	4.9	6.8	7.9
	NR Sound Power Level (dB)	15	25	32	38	42
2	L/S per metre	59	88	120	155	190
	Horizontal throw (m) (0.25m/s terminal velocity)	3	5.2	7.5	9.8	11.1
	NR Sound Power Level (dB)	18	29	36	42	46
3	L/S per metre	88	134	185	248	300
	Horizontal throw (m) (0.25m/s terminal velocity)	4.2	6.9	9.5	12	14
	NR Sound Power Level (dB)	20	31	37	44	50
4	L/S per metre	120	180	258	318	394
	Horizontal throw (m) (0.25m/s terminal velocity)	5.2	8	11	14	16
	NR Sound Power Level (dB)	22	33	38	46	52
5	L/S per metre	145	221	312	398	487
	Horizontal throw (m) (0.25m/s terminal velocity)	6	9.2	12.2	15.6	18
	NR Sound Power Level (dB)	24	34	40	47	58
6	L/S per metre	170	266	358	472	562
	Horizontal throw (m) (0.25m/s terminal velocity)	6.8	10	13.4	16.3	19
	NR Sound Power Level (dB)	25	34	41	49	59

ACTIVE LENGTH CORRECTION TABLE

DIFFUSER ACTIVE LENGTH (M)	THROW MULTIPLIER	SOUND LEVEL CORRECTION
0.4	0.6	-4 dB
0.5	0.7	-3 dB
1	1	0
1.5	1.15	-2 dB
2	1.25	-3 dB
3.0+	1.3	-5 dB

*The active length correction table can be used to determine the throw at different active length

HIDDEN LINEAR SLOT DIFFUSERS

Linear Slot Diffuser – Vertical/Sidewall Projection (No Wall or Ceiling Effect)

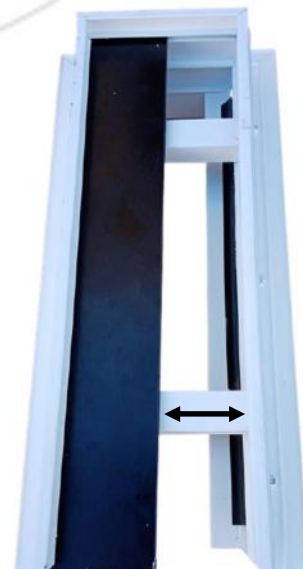
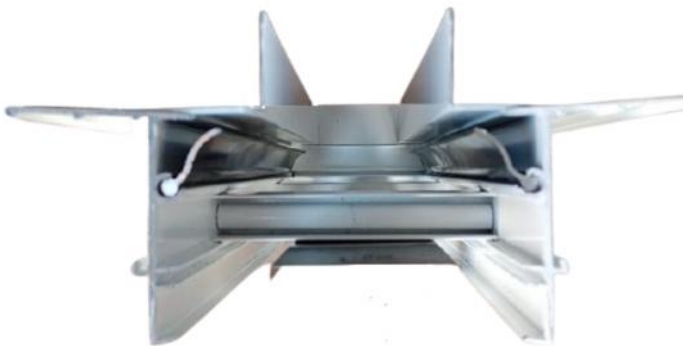
For Throw Distance (m) (0.25m/s terminal velocity multiply by 2)

NO OF SLOTS	TOTOAL PRESURE (pa)	<10	20	40	60	80
1	L/S per metre	28	43	58	78	92
	Horizontal throw (m) (0.25m/s terminal velocity)	0.9	2	3.2	4.5	5.4
	NR Sound Power Level (dB)	15	25	32	37	41
2	L/S per metre	58	85	130	158	190
	Horizontal throw (m) (0.25m/s terminal velocity)	2	3.5	5.1	6.8	7.9
	NR Sound Power Level (dB)	11	28	36	41	45
3	L/S per metre	86	168	182	245	295
	Horizontal throw (m) (0.25m/s terminal velocity)	2.9	4.7	6.4	8.1	9.5
	NR Sound Power Level (dB)	12	30	36	44	50
4	L/S per metre	138	180	240	312	390
	Horizontal throw (m) (0.25m/s terminal velocity)	3.5	5.6	7.5	9.2	11
	NR Sound Power Level (dB)	12	32	38	45	51
5	L/S per metre	144	220	300	395	480
	Horizontal throw (m) (0.25m/s terminal velocity)	4	6.1	8.2	10.1	12
	NR Sound Power Level (dB)	18	33	39	46	55
6	L/S per metre	170	265	345	450	550
	Horizontal throw (m) (0.25m/s terminal velocity)	4.4	69	9	11	12.5
	NR Sound Power Level (dB)	24	34	40	47	58

HI THROW FLOW BAR LINEAR SLOT DIFFUSER

AIRONIX HI THROW FLOW BAR is an architecturally designed high capacity linear slot diffuser. It is designed to combine a high air handling capacity with maximum flexibility and is suitable for either ceiling or sidewall applications. The flexibility of the system can blend into a design or provide contrast with its striking but simple design. HI THROW Flow Bar is a flexible system that can provide straight lines or curves to blend with other architectural elements and enhance the overall concept of the project.

- The High Throw series is primarily designed for ceiling applications and allows the air diffuser to become inconspicuous, whilst fully integrating into the ceiling system.
- The Flow Bar systems satisfy both architectural and engineering requirements for designing an air distribution system that will maintain optimum room air conditions whilst being efficient yet inconspicuous.
- Integral pattern controllers allow the airstream to be directed left and right for horizontal and vertical airflow.
- Standard slot sizes (front openings) are 40mm, 50mm, 60mm with single section lengths available up to 2500mm; maintaining a neck (collar) size of 100mm
- Non-standard slot sizes (front openings) are 60mm, 70mm, 80mm with single section lengths available up to 2500mm; maintaining a neck (collar) size of 150mm



HI THROW FLOW BAR LINEAR SLOT DIFFUSER

Performance Data: **HTFLB**

Based on 100mm NECK (COLLAR) SIZE, Length 1000mm

40mm Slot Width	Air Flow, l/s-m	43	65	86	108	129	151	173
	Static Pressure	8	18	32	51	73	99	129
	Pa NC (Noise Criteria)	<10	14	24	31	37	42	48
	Throw, m	1.8 - 3 - 5	3 - 4.3 - 5.8	4 - 5 - 6.8	4.3 - 5.5 - 7.5	5 - 5.8 - 8.3	5.3 - 6.5 - 8.8	5.5 - 6.8 - 9.8
50mm Slot Width	Air Flow, l/s-m	43	72	101	129	158	187	216
	Static Pressure	5	14	28	46	68	95	127
	Pa NC (Noise Criteria)	<10	11	22	30	36	41	46
	Throw, m	1.5 - 2.8 - 5	2.8 - 4.3 - 6	4 - 5.3 - 7.3	5 - 5.8 - 8.3	5.3 - 6.5 - 9.3	5.8 - 7 - 10	6 - 7.5 - 10.8
60mm Slot Width	Air Flow, l/s-m	43	79	115	151	187	223	259
	Static Pressure	3	10	22	38	58	82	110
	Pa NC (Noise Criteria)	<10	11	23	31	38	43	48
	Throw, m	1.3 - 2.5 - 5	3 - 4.5 - 6.5	4.3 - 5.5 - 8	5.3 - 6.5 - 8.8	5.8 - 7 - 10	6.5 - 7.5 - 11	6.8 - 8.3 - 12.8

Based on 150mm NECK (COLLAR) SIZE, Length 1500mm

60mm Slot Width	Air Flow, l/s-m	47	90	132	175	217	260	302
	Static Pressure	2	8	18	31	48	68	92
	Pa NC (Noise Criteria)	<10	<10	15	25	33	39	45
	Throw, m	0.5 - 1.5 - 4	2.5 - 3.8 - 6	3.8 - 5.3 - 7.3	5 - 6 - 8.5	5.5 - 6.8 - 9.5	5.8 - 7.3 - 10.3	6.5 - 8 - 11
70mm Slot Width	Air Flow, l/s-m	71	113	156	198	241	283	326
	Static Pressure	3	8	15	24	35	49	65
	Pa NC (Noise Criteria)	<10	<10	18	28	36	43	49
	Throw, m	1.3 - 2.8 - 5.5	3 - 4.5 - 6.8	4 - 5.5 - 8	5.3 - 6.5 - 8.8	5.8 - 7 - 9.8	6 - 7.5 - 10.8	6.8 - 8.3 - 11.5
80mm Slot Width	Air Flow, l/s-m	104	146	189	231	274	316	359
	Static Pressure	6	12	20	29	41	55	71
	Pa NC (Noise Criteria)	<10	<10	17	25	33	40	46
	Throw, m	2.5 - 3.8 - 6.5	3.8 - 5.3 - 7.5	4.5 - 6 - 8.8	5.5 - 7 - 9.8	6 - 7.3 - 10.8	6.5 - 8 - 11.3	7 - 8.5 - 12.3

JET NOZZLE SPOT AIR DIFFUSERS



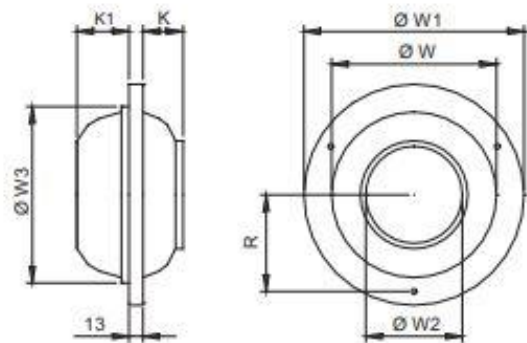
AIRONIX Jet Nozzle Spot air diffusers are suitable for wall application for large volume of air handling and longer throw. These have unique feature of setting the device both for diffusion and air Jet. Also, the universal Joint type setting allows both Jet / Diffusion in any desired angle. Manufactured from high grade Aluminium Spinning with "Step - Up" ring placement duly powder coated. The pivoted core can rotate by 360 degree with respect to the outer casing.

Application:

Rooms / Halls, Shopping Malls, Assembly Halls etc.

DIMENSIONS

NS	ØW	ØW1	ØW2	ØW3	K	K1	R
75	76	127	37	86	19	16	51
100	102	152	51	112	27	24	63.5
150	152	203	89	162	37	41	89
200	203	254	127	213	50	60	114.5



- Specially designed for large enclosures
- Long throw pattern with low velocity reduction
- Directional air pattern; maximum deflection angle of 30° in all directions
- Circular duct connection with rubber gasket
- Corrosion resistant hardened aluminium

RING JET AIR DIFFUSERS

ورشة ايرونيكس للحداة والالمنيوم

AIRONIX
AIRONIX STEEL & ALUMINIUM WORKS

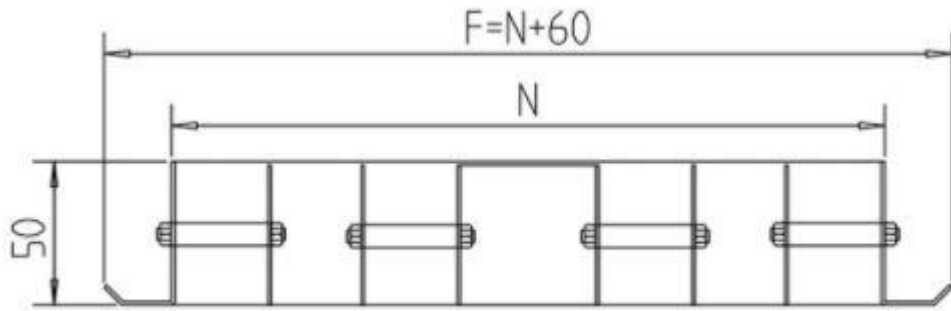


AIRONIX Ring Jet air diffuser is made up of high-quality Aluminium. Jet diffuser are designed for use in large areas long throw such as sport centers, theaters, airport, entertainment and industrial area. Jet diffuser suitable for air conditioning evaporate cooling or ventilation application.

Jet diffuser can be rotated by 360 degree by adjusting the core. Jet diffuser are available in with or without panel.

Standard Finish: Natural anodized & Powder coated.

Application: Jet diffusers are immensely used for high ceiling such as airports, cinema theaters, shopping malls, exhibition halls & high roofing industries.



Construction:

- Frame & Core: High quality extruded aluminium alloy (A6063) sheet.

Description:

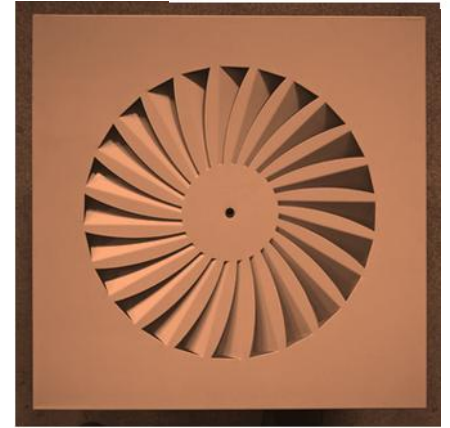
- The frame & blades are high quality extruded aluminium profiled construction with advantages of corrosion resistance and rigidity.
- This type of multi-ring air diffuser is specially designed to use in the application where the high airflow capacity and long throw supply system is required.
- The inner core can be adjustable in 45 degree to control the air.
- Ring jet diffuser can be connect with duct or flexible aluminium duct directly for convenient installing.

Details:

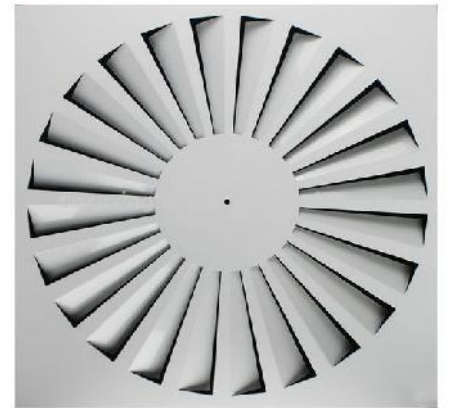
- **Surface Finish:** Powder coated color finish as per RAL color----standard color: RAL9016, 9010

SWIRL AIR DIFFUSERS

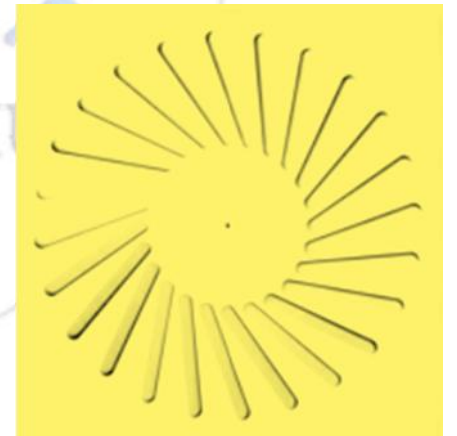
Suitable for ceiling mounting and can be manufactured to suit most ceiling tile arrangements. **AIRONIX Curved Vane Swirl Diffuser** offers excellent induction of room air and the rapid decay of supply air velocities.



Suitable for ceiling mounting and can be manufactured to suit most ceiling tile arrangements. **AIRONIX Straight Vane Swirl Diffuser** offers excellent induction of room air and the rapid decay of supply air velocities and air temperature differentials.



Suitable for ceiling mounting and can be used for both supply & extract air. **The Radial Swirl Diffuser** offers excellent performance with the rapid decay of supply air velocities and temperature differentials.



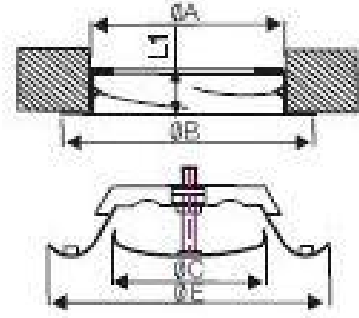
The Vane Swirl Diffuser is designed for areas where rapid mixing of supply air is required in rooms of ceiling height between 2.6m and 4m. High air volume capacity
Standard top entry neck, or side entry with plenum box
Adjustable polymer deflectors enabling different discharge directions. Optional room adjustable vanes.



AIR DISC VALVE

ورشة ايرونيكس للحداثة والالمنيوم

IRONIX
AIRONIX STEEL & ALUMINIUM WORKS



ورشة ايرونيكس للحداثة والالمنيوم

Neck Size in Diameter:

- 4" – 100mm
- 6" – 150mm
- 8" – 200mm
- 10" – 250mm

IRONIX

AIRONIX STEEL & ALUMINIUM WORKS

Features of AIR DISC VALVES:

- 1) Aluminium alloy material, multi-layer conical shape.
- 2) Excellent appearance with molding vane and outside frame into integrity.
- 3) Offers maximum air flow while maintaining low noise level.
- 4) Inside core of this ceiling diffuser can be dismantled, easily install and reassembled.
- 5) Optional with round sector damper or butterfly damper
- 6) Natural anodized Aluminium finish or powder coated.

Functions: Step down diffuser rings deflect air stream 360 degrees. As the air outlet of central air-condition system terminal with the larger diffusion area.

Use: For upward airflow, suitable for ceiling of toilets, washrooms, bathrooms, in shopping malls, offices, hotels, restaurants, gymnasium and other buildings as applied.

Certificate of Registration

ISO 9001:2015

*This is to Certify that
Quality Management Systems of*

AIRONIX STEEL & ALUMINIUM WORKSHOP

**PO Box 1404, New Industrial Area
Umm Al Quwain, UAE**

has been assessed and found to conform to the requirements of

ISO 9001:2015

for the following scope:

**Smithery and Welding Workshop, Aluminium & Glass
Installation Workshop.**

Certificate No.	: 179AGA2901	
Initial Registration Date	: 17.08.2020	Issuance Date: 19.08.2020
Date of Expiry *	: 18.08.2023	
1st Surve. Due	: 18.08.2021	2nd Surve. Due : 18.08.2022



Director



Accurate Global Ltd.

Address- 27, Old Gloucester Street, London, WC1N3AX, United Kingdom

**Validity of the Certificate is subject to successful completion of surveillance audit on or before of due date. (in case surveillance audit is not allowed to be conducted, this certificate shall be suspended/withdrawal).*

Certificate Verification: Please Re-check the validity of certificate at www.accurateiso.com at Active Clients. Certificate is the property of Accurate Global Ltd. London, UK and shall be returned immediately when demanded).