idealair
group

DIOZ

swirl diffusers

SSDA
SSDA8B295
SSDA16B395
SSDA24BHT
SSDA36BHT
SSDA48BHT

RSDA
RSDA8B295

idealair group

PRODUCT DATA SHEET

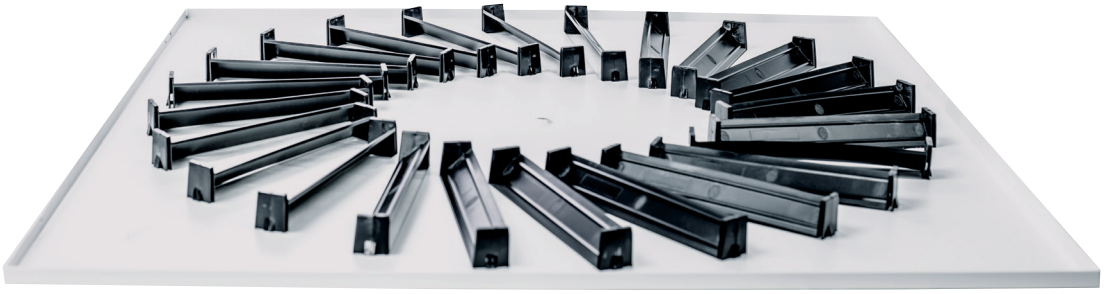
1 YR WARRANTY

SWIRL DIFFUSERS

Overview

The SSDA (square) and RSDA (round) Swirl Diffusers feature removable, black plastic air control blades that deliver a highly inductive swirl action. They are designed for ceiling mounting up to around 4.5m and will fit most ceiling systems. They can also be installed freely suspended in applications with no ceiling. The multi-stream discharge pattern ensures rapid entrainment of room air into the primary stream, delivering higher levels of comfort than traditional diffusion styles and making it suitable for lower supply air temperatures and VAV turn down rates.

Due to the high mixed air temperature and low velocity distribution, centre to centre spacing requirements are very forgiving. The diffusers are manufactured from steel sheet with a pressed control blade, creating an aesthetically attractive diffuser. The finish is powder coated RAL9016. Other colours are available upon request.



Rear perspective

Front view

Rear view

End view

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062022

Product Specifications

Idealair Group - Swirl Diffuser - Quick Selector																							
Maximum Airflow L/s	**15**	**20**	**30**	**40**	**60**	**75**	**80**	**100**	**120**	**140**	**160**	**180**	**200**	**220**	**240**	**260**	**280**	**300**	**320**	**340**	**360**	**380**	**400**
Model																							
SSDA-48BHT																							
SSDA-36BHT																							
SSDA-24BHT																							
SSDA/RSDA-16B395																							
SSDA/RSDA-8B295																							

Technical Data

Product Code: SSDA-48BHT																							
Maximum Airflow	**L/s**	**15**	**20**	**30**	**40**	**60**	**75**	**80**	**100**	**120**	**140**	**160**	**180**	**200**	**220**	**240**	**260**	**280**	**300**	**320**	**340**	**360**	**380**	**400**
Min Centre to Centre Distance	**m**										3.7	3.9	4.2	4.4	4.6	4.8	5	5.2	5.4	5.6	5.7	5.9	6	6.1
Static Pressure Loss	**pa**										5	6	8	10	12	14	16	19	22	25	28	32	35	39
Sound Power Level	**Lwa**										26	30	33	36	39	42	44	46	48	50	52	53	55	56

Product Code: SSDA-36BHT																							
Maximum Airflow	**L/s**	**15**	**20**	**30**	**40**	**60**	**75**	**80**	**100**	**120**	**140**	**160**	**180**	**200**	**220**	**240**	**260**	**280**	**300**	**320**	**340**	**360**	**380**	**400**
Min Centre to Centre Distance	**m**									3.4	3.7	3.9	4.2	4.4	4.6	4.8	5	5.2	5.4	5.6	5.7	5.9		
Static Pressure Loss	**pa**									4	6	8	11	13	15	18	22	26	28	32	37	43		
Sound Power Level	**Lwa**									<25	29	33	35	38	41	45	47	48	50	51	53	54		

Product Code: SDA-24BHT																							
Maximum Airflow	**L/s**	**15**	**20**	**30**	**40**	**60**	**75**	**80**	**100**	**120**	**140**	**160**	**180**	**200**	**220**	**240**	**260**	**280**	**300**	**320**	**340**	**360**	**380**	**400**
Min Centre to Centre Distance	**m**							2.8	3.1	3.4	3.7	3.9	4.2	4.4	4.6	4.8	5	5.2	5.4					
Static Pressure Loss	**pa**							3	4	6	9	11	14	17	21	25	29	34	39					
Sound Power Level	**Lwa**							<25	<25	27	31	35	38	41	44	46	49	51	53					

Product Code: SSDA/RSDA-16B395																								
Maximum Airflow	**L/s**	**15**	**20**	**30**	**40**	**60**	**75**	**80**	**100**	**120**	**140**	**160**	**180**	**200**	**220**	**240**	**260**	**280**	**300**	**320**	**340**	**360**	**380**	**400**
Min Centre to Centre Distance	**m**				2	2.4		2.8	3.1															
Static Pressure Loss	**pa**				6	13		23	35															
Sound Power Level	**Lwa**				<25	26		30	38															

Product Code: SSDA/RSDA-8B295																								
Maximum Airflow	**L/s**	**15**	**20**	**30**	**40**	**60**	**75**	**80**	**100**	**120**	**140**	**160**	**180**	**200**	**220**	**240**	**260**	**280**	**300**	**320**	**340**	**360**	**380**	**400**
Min Centre to Centre Distance	**m**		1.5	1.8	2	2.4																		
Static Pressure Loss	**pa**		6	12	20	42																		
Sound Power Level	**Lwa**		<25	26	29	40																		

Notes:

For distances to walls, halve the above centre to centre dimensions.

Recommended C/L distances between diffusers are based on satisfying a max air velocity of 0.25 m/s for 2.7m discharge height.

Selections are based on temperature differential between supply air and room of -12K.

To convert Sound Power Level to dB(A) Sound Pressure Level in the space a typical room sound absorption of – 10 dB should typically be allowed. For conversion to NR levels an additional 5dB (15dB in total) should be subtracted. For example, in a typical commercial space a diffuser Sound Power Level of 35 dB(A) would equate to a Sound Pressure Level of 25 dB(A) or around NR20.

Not to be used for commissioning purposes.

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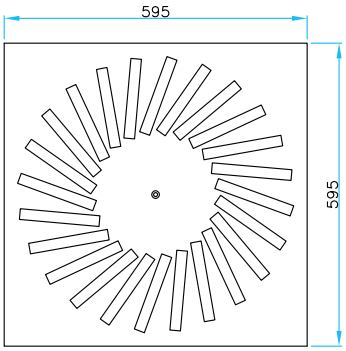
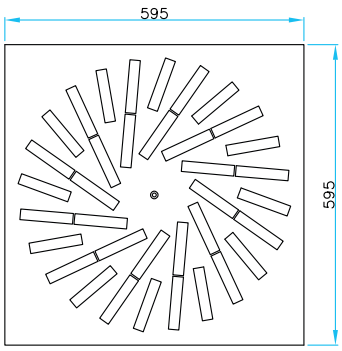
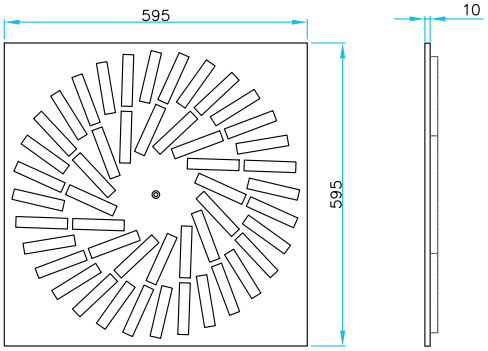
SSDA – Square Swirl Diffuser



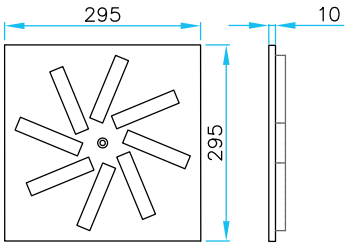
SSDA24BHT



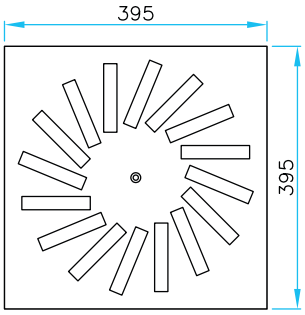
SSDA36BHT



SSDA48BHT



SSDA8B295

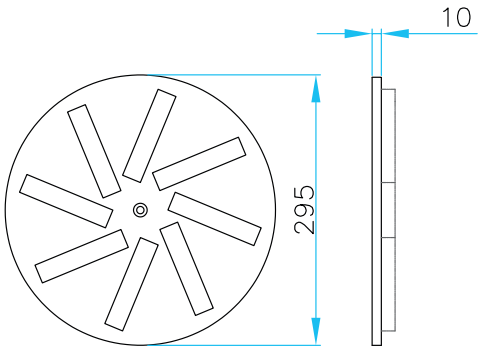


SSDA16B395

Product Code	Size	No. Blades
SSDA24BHT	595 x 595 Face	24
SSDA36BHT	595 x 595 Face	36
SSDA48BHT	595 x 595 Face	48
SSDA8B295	295 x 295 Face	8
SSDA16B395	395 x 395 Face	16

Dimensions in millimetres

RSDA – Round Swirl Diffuser



RSDA8B295

Product Code	Size	No. Blades
RSDA8B295	295 FACE Ø	8

Dimensions in millimetres

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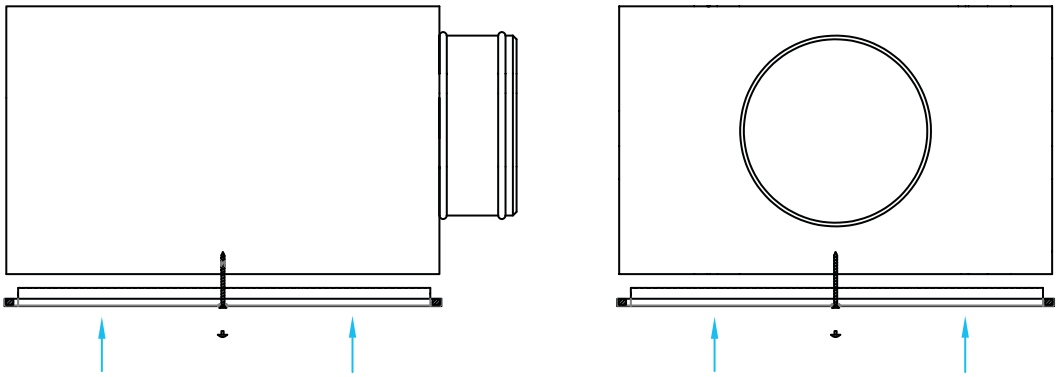
SHSD & RHSD Swirl Diffuser Cushion Boxes



SERIES PIB - CUSHION BOX TO SUIT ALL
SHSD & RHSD MODEL SWIRL DIFFUSERS

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