

Publication
DIFFUSERS
section 2

PART J

MARCH 2015

Air Diffusers

supply and exhaust
ventilation systems

Swirl Diffuser Type SSW



Brooke Air[®]

Swirl Diffusers

DESIGN FEATURES

introduction

Suitable for ceiling mounting and can be manufactured to suit most ceiling tile arrangements.

The Straight Vane Swirl Diffuser offers excellent induction of room air and the rapid decay of supply air velocities and air temperature differentials.

multiple variations

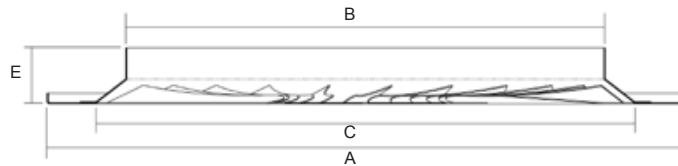
Nom Size	A	BØ	CØ	E
200	595	197	250	55
300	595	297	350	55
350	595	347	400	55
450	595	447	500	55
500	595	500	500	55

Nom Size	A	BØ	CØ	D 24T/15T	E
200	595	197	250	574/584	55
300	595	297	350	574/584	55
350	595	347	400	574/584	55
450	595	447	500	574/584	55
500	595	500	500	574/584	55

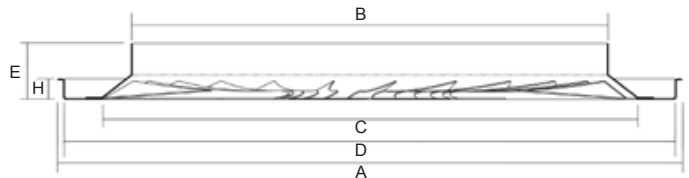
Nom Size	A	BØ	CØ	E
200	599	197	250	55
300	599	297	350	55
350	599	347	400	55
450	599	447	500	55
500	599	500	500	55

Nom Size	AØ	BØ	CØ	E
200	326	197	250	55
300	426	297	350	55
350	480	347	400	55
450	590	447	500	55
500	590	500	500	55

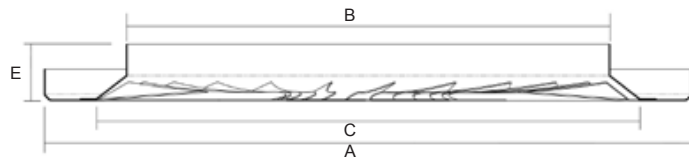
SSW-24-L Lay-in Ceiling Type



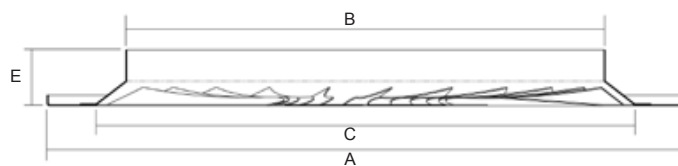
SSW-24-T Tegular Ceiling Type



SSW-24-M Clip-in Metal Ceiling Type



SSW-24-C Circular Swirl Diffuser



Swirl Diffusers

PERFORMANCE

how to order

Type	No of Blades	Edge Detail	Tegular Depth	Size	Overall Size	RAL Colour
SSW	24	L - Lay-In Grid	e.g. 14mm	200	595 x 595 599 x 599	e.g. RAL 9010
		T15 - Tegular 584 x 584		300		
		T24 - Tegular 574 x 574		350		
		M - Clip-In Metal Tile		450 500		

e.g. 10 No SSW - 24 - L - 450 - 595 x 595 - RAL 9010

performance data

Size		10	15	20	25	30	35	40	45	50
200 Dia	I/s	10	15	20	25	30	35	40	45	50
	Throw m	0.3 - 0.5	0.4-0.8	0.5-1.0	0.6-1.3	0.8-1.5	0.9-1.8	1.0-2.2	1.2-2.3	1.3-2.7
	Pa	1	3	5	9	12	17	22	28	34
	NC					17	22	25	29	32
	I/s	55	60	65	70					
	Throw m	1.4-2.8	1.5-3.1	1.7-2.3	1.8-3.6					
	Pa	41	49	57	67					
300 Dia	NC	34	37	39	41					
	I/s	30	35	40	45	50	55	60	65	70
	Throw m	0.5-1.0	0.6-1.2	0.7-1.4	0.7-1.5	0.8-1.7	0.9-1.9	1.2-2.2	1.2-2.3	1.2-2.4
	Pa	3	4	5	6	8	9	11	13	15
	NC						16	19	21	23
	I/s	75	80	85	90	95	100	105	110	115
	Throw m	1.3-2.5	1.4 - 2.7	1.5 - 2.9	1.8 - 3.1	2.1 - 3.2	2.2 - 3.4	2.6 - 3.6	2.6 - 3.7	2.6 - 3.9
350 Dia	Pa	17	20	22	25	28	31	33	38	41
	NC	25	27	29	30	32	33	35	36	37
	I/s	50	55	60	65	70	80	90	100	110
	Throw m	0.8-1.6	0.8-1.7	1.0-1.9	1.1-2.0	1.1-2.2	1.2-2.5	1.5-2.8	1.5-3.1	1.5-3.4
	Pa	4	4	5	6	7	9	12	14	17
	NC						17	20	23	26
	I/s	120	130	140	150	160	170	180	190	200
450 Dia	Throw m	1.8-3.8	2.0-4.1	2.1-4.4	2.3-4.7	2.4-5.0	2.5-5.3	2.8-5.6	2.4-5.9	3.0-6.3
	Pa	21	24	28	32	36	41	46	51	57
	NC	28	31	33	35	36	38	40	41	43
	I/s	75	80	90	100	110	120	130	140	150
	Throw m	0.8-1.8	0.9-1.9	1.0-2.2	1.1-2.4	1.2-2.6	1.4-2.9	1.5-3.1	1.6-3.4	1.8-3.6
	Pa	5	6	7	9	11	13	15	18	20
	NC					16	18	21	23	25
500 Dia	I/s	160	170	180	190	200	210	220	230	240
	Throw m	1.8-3.8	2.0-4.1	2.1-4.3	2.3-4.6	2.4-4.8	2.4-5.0	2.5-5.3	2.7-5.5	2.8-5.8
	Pa	23	26	29	33	36	40	44	48	52
	NC	26	28	30	31	33	34	35	37	38
	I/s	100	110	120	130	140	150	160	170	180
	Throw m	0.8-2.0	1.0-2.2	1.1-2.4	1.2-2.6	1.3-2.8	1.4-3.0	1.5-3.2	1.6-3.4	1.8-3.6
	Pa	6	7	8	9	11	13	14	16	18
500 Dia	NC					15	17	18	20	22
	I/s	190	200	210	220	230	240	260	280	300
	Throw m	1.8-3.8	2.0-4.0	2.1-4.2	2.2-4.4	2.2-4.6	2.3-4.8	2.5-5.2	2.6-5.6	2.9-6.0
	Pa	20	22	25	27	29	32	38	44	50
	NC	23	25	26	27	29	30	32	34	36

NOTE:

All throws based on terminal velocities of 0.5 - 0.25 m/s

For Return Air Applications Multiply Pa x 0.75, NC Levels remain the same

Diffuser programme literature

part A	Introduction, Technical Overview and Selection Guide.
part B	Continuous Slot and Linear Louvre Diffusers.
part C	Multicore Square and Rectangular Diffusers.
part D	Laminar Flow Panels.
part E	Circular Diffusers.
part F	Drum Jet Diffusers.
part G	Supply and Extract Valves.
part H	Plenum Boxes.
part I	Finshes and Conversion factors.
part J	Swirl Diffusers.



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