

Publication
DIFFUSERS
section 2

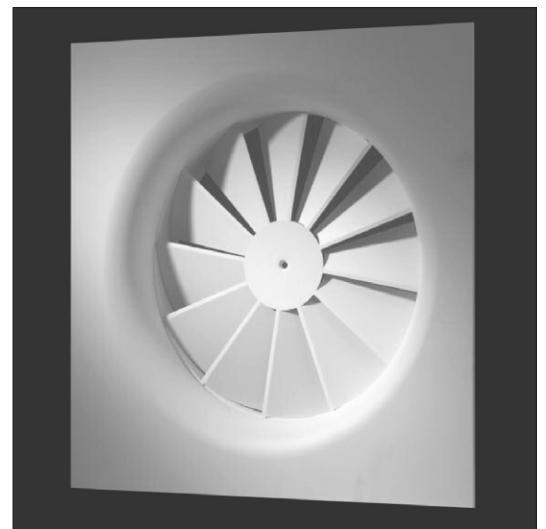
PART J

MARCH 2015

Air Diffusers

supply and exhaust
ventilation systems

Swirl Diffuser Type RSW



Brooke Air[®]

Swirl Diffusers

DESIGN FEATURES

introduction

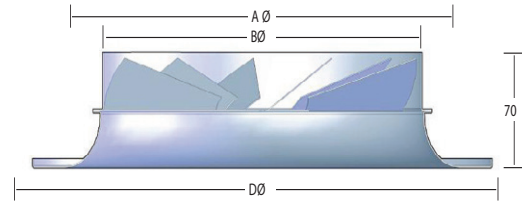
Fixed Vane Swirl Diffuser manufactured from zintec sheet. The curved frame is for horizontal air distribution whilst the flush frame is suitable for greater downward projection.

multiple variations

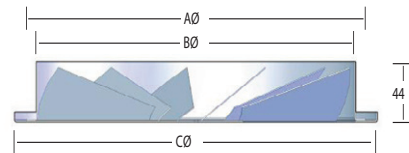
Size	A	B	C	D
160	160	158	198	250
200	200	198	248	300
250	250	248	298	350
315	315	312	363	450
350	350	347	398	500
400	400	398	600	570

Size	A	B	C
160	160	158	594
200	200	198	594
250	250	248	594
315	315	312	594
400	400	398	594

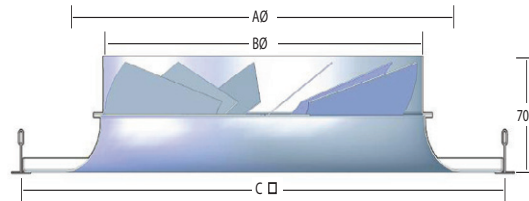
RSW - 12 - C Circular



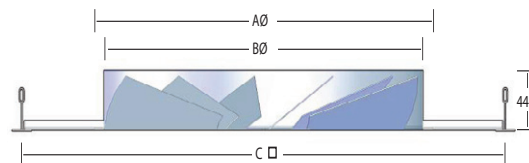
FSW - 12 - C Circular



RSW - 12 - L Square



FSW - 12 - L Square



Swirl Diffusers

PERFORMANCE

how to order

Type	No of Blades	Edge Detail	Size	Overall Size	RAL Colour
RSW	12	L - Lay-In Grid C - Circular Frame	160 250 315 350 400	e.g. 594 x 594	e.g. RAL 9010

e.g. 10 No RSW - 12 - L - 400 - 594 x 594 - RAL 9010

performance data

Size								
160 Dia	Air Volume l/s	20	30	40	50	60	70	80
	Throw (Vt 0.25 m/s)	0.6	1.0	1.3	1.6	1.9	2.3	2.6
	Throw (Vt 0.5 m/s)	0.3	0.5	0.6	0.8	1.0	1.1	1.3
	Pressure Drop (Pa)	4	10	18	28	40	54	71
	NC Level	<15	19	27	34	39	43	47
200 Dia	Air Volume l/s	30	40	50	60	70	80	100
	Throw (Vt 0.25 m/s)	0.8	1.1	1.4	1.7	2.0	2.2	2.8
	Throw (Vt 0.5 m/s)	0.5	0.6	0.7	0.8	1.0	1.1	1.4
	Pressure Drop (Pa)	6	11	17	24	33	43	67
	NC Level	<15	18	25	30	34	38	44
250 Dia	Air Volume l/s	60	80	100	120	140	160	180
	Throw (Vt 0.25 m/s)	1.4	1.8	2.3	2.7	3.2	3.6	4.1
	Throw (Vt 0.5 m/s)	0.6	0.8	1.1	1.3	1.5	1.7	2.0
	Pressure Drop (Pa)	10	17	27	39	53	70	88
	NC Level	16	24	30	35	40	43	47
315 Dia	Air Volume l/s	80	100	120	150	180	200	220
	Throw (Vt 0.25 m/s)	1.5	1.8	2.2	2.7	3.3	3.6	4.0
	Throw (Vt 0.5 m/s)	0.7	0.9	1.2	1.4	1.6	1.8	2.0
	Pressure Drop (Pa)	6	9	13	20	29	36	43
	NC Level	20	26	31	38	43	46	48
350 Dia	Air Volume l/s	100	125	150	175	200	225	
	Throw (Vt 0.25 m/s)	1.9	2.4	2.8	3.3	3.8	4.2	
	Throw (Vt 0.5 m/s)							
	Pressure Drop (Pa)	6	10	16	20	26	33	
	NR Level	24	30	36	40	44	47	
400 Dia	Air Volume l/s	150	180	200	220	250	280	300
	Throw (Vt 0.25 m/s)	2.3	2.7	3.0	3.3	3.8	4.2	4.5
	Throw (Vt 0.5 m/s)	1.1	1.3	1.5	1.7	1.9	2.1	2.3
	Pressure Drop (Pa)	12	17	21	25	32	41	47
	NC Level	32	37	40	42	46	49	51

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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