

20/21
PRODUCTS

Product Catalogue

Swirl Diffuser

Type (SWD)



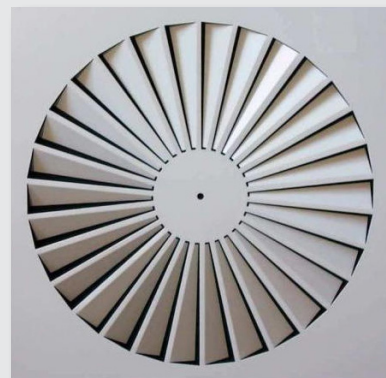
Khedr Trust
ALL AIR PRODUCTS

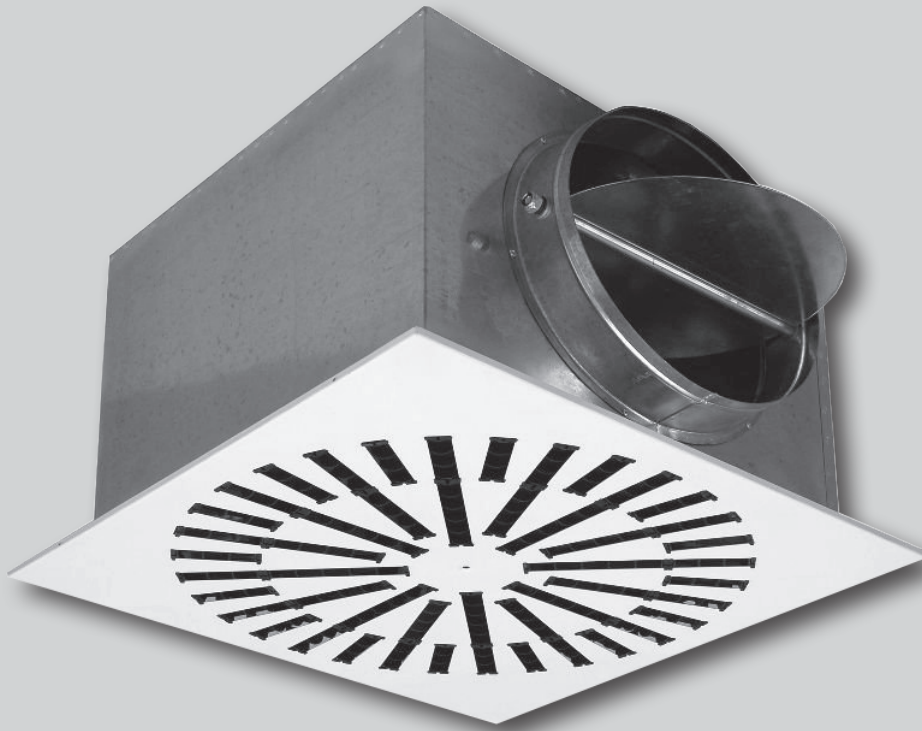
Swirl Diffuser products are manufactured by



“ Your comfort is
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Models

- SWD



Finish

- Standard Finish - White



Swirl Diffuser

Model Design

Khedr Model SWD Diffusers has fixed spiral blades that creates rotational as well as axial, Tangential and radial air Movement.

Flow Pattern

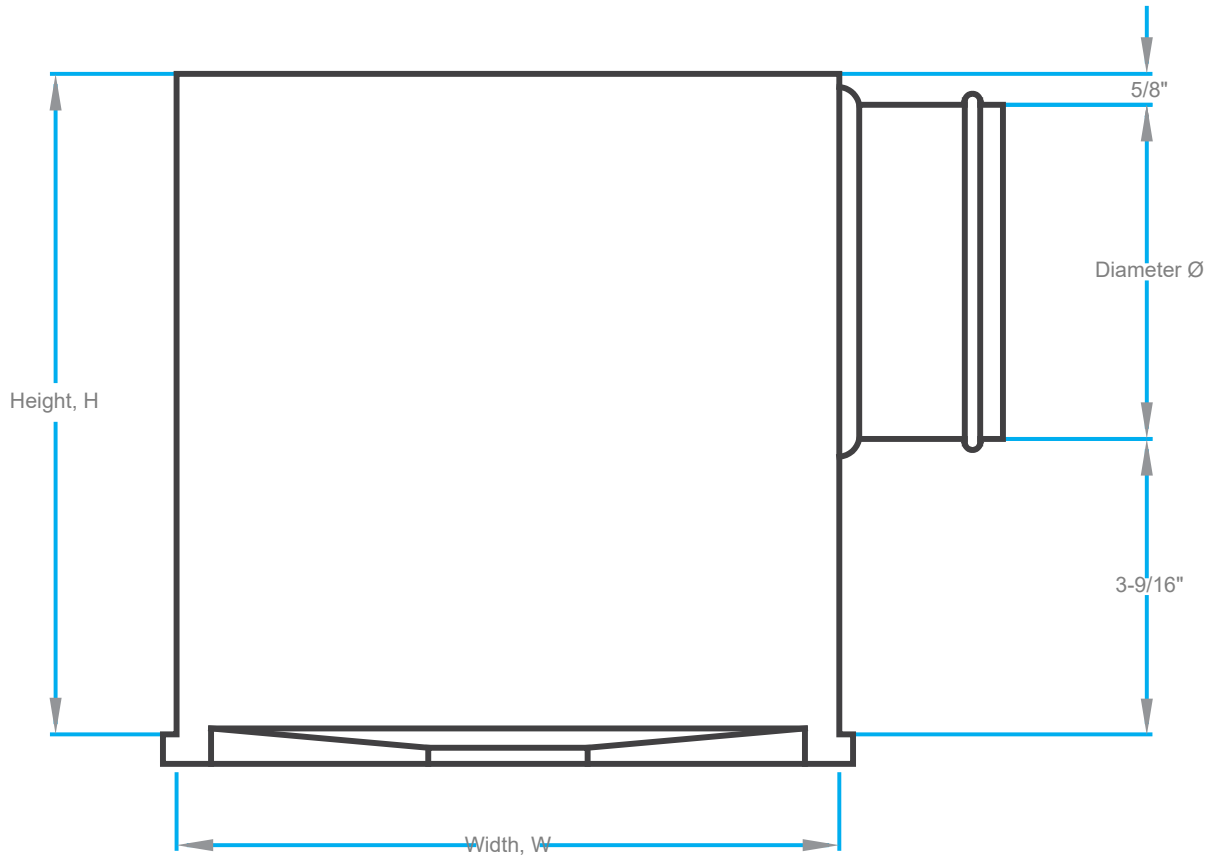
SWD Diffusers produces a strong horizontal swirl allowing the supply air flow to rapidly mix room air.

Model Use

SWD Diffusers are suitable to be used with applications like Offices, retails, Hotels and Fitness Gyms.

- Dimensions

- Type (A)



Face Size (Inch)	Neck Size (Inch)		Width (Inch)	Height (Inch)
	Round	Rectangular		
24 x 24	Ø 6	6 x 6	23.8	9
	Ø 8	8 x 8	23.8	11
	Ø 10	10 x 10	23.8	13
	Ø 12	12 x 12	23.8	15

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- Performance data

Neck Size "Inch"		V_k Outlet Velocity "FPM"											
		200	300	400	500	600	700	800	900	1000	1100	1200	1300
6 x 6 or Ø 6	CFM	38	57	76	95	114	133	152	171	190	209	228	247
	P_k	0.004	0.012	0.022	0.034	0.049	0.067	0.087	0.106	0.126	0.155	0.188	0.129
	T	1-3	2-4	3-5	3-6	4-6	5-7	5-7	5-8	6-8	6-9	6-9	7-9
	NC	-	-	4	9	13	16	19	23	26	30	33	35
8 x 8 or Ø 8	CFM	68	101	135	169	203	237	271	304	338	372	406	440
	P_k	0.008	0.017	0.030	0.047	0.067	0.094	0.117	0.145	0.189	0.218	0.259	0.304
	T	2-3	2-4	3-5	3-7	4-7	5-8	5-9	6-9	7-10	7-10	7-11	8-11
	NC	-	6	12	17	21	27	31	35	38	40	41	43
10 x 10 or Ø 10	CFM	106	159	211	264	317	370	423	476	528	581	634	-
	P_k	0.011	0.024	0.043	0.068	0.144	0.152	0.191	0.240	0.297	0.359	0.427	-
	T	2-4	3-6	4-8	5-9	6-10	7-11	8-12	9-13	9-13	10-14	10-14	-
	NC	-	10	16	21	28	34	36	40	42	44	46	-
12 x 12 or Ø 12	CFM	152	228	304	380	457	533	609	685	761	837	-	-
	P_k	0.023	0.053	0.094	0.138	0.199	0.271	0.354	0.448	0.554	0.670	-	-
	T	3-5	4-8	5-10	6-11	8-13	9-14	10-15	11-15	12-16	12-17	-	-
	NC	9	18	24	30	38	41	44	47	49	51	-	-

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The minimum T Dimensions in feet is based on a V_T of 100 FPM , The Maximum T Dimension In feet is based on a V_T of 50.

T Throw "Feet"

V_k Outlet Velocity "FPM"

NC re 8db room

P_T Total Pressure "Inch Water"

- Selection Procedure

1. Determine the required CFM per each outlet as per cooling Load Calculation.
2. Determine the recommended Outlet Velocity V_k according to application as per following Table.
3. Select the size that give the required CFM at recommended outlet velocity from performance data tables.

Application	V_k Outlet Velocity "FPM"
Broadcast Studios	300-500
Residences	500-750
Apartments	500-750
Mosques , Churches	500-750
Hotel Bedrooms	500-750
Theaters	500-750
Private Offices, Acoustically Treated	500-750
Private Offices, not Treated	500-800
General Offices	1000-1250
Dept. Stores	1500

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Table (1) – Recommended Outlet Velocity *

* Table 20—Carrier Handbook - Part 2. Air Distribution - Chapter 3. Room Air Distribution—p.72

- Selection Procedure Example

1. Required 250 CFM as per cooling load calculations.
2. The recommended outlet velocity ranges from 300 – 500 FPM.
3. The size of air outlet :
 - A. Size 10" X 10" at 400 FPM.
 - B. Size 12" X 12" at 300 FPM.

Neck Size "Inch"		V _k Outlet Velocity "FPM"			
		200	300	400	500
10 x 10 or Ø 10	CFM	106	159	211	264
	P _T	0.011	0.024	0.043	0.068
	T	2-4	3-6	4-8	5-9
	NC	-	10	16	21
12 x 12 or Ø 12	CFM	152	228	304	380
	P _T	0.023	0.053	0.094	0.138
	T	3-5	4-8	5-10	6-11
	NC	9	18	24	30

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- How to oprder

Type	SWD	Swiril Diffser
Material	A	A Aluminum S Steel
Size	Ø	Ø " Inch"
Finish	1	0 Aluminum 1 White Color 2 Other Colors
Damper	0	0 Without Damper 1 With Damper

Swirl Diffuser products are manufactured by Khedr Trust Co.

Other Products are provided by Khedr Trust Co.

Diffusers & Grills

Slot Linear Diffuser
Eye Ball Diffuser
Circular Ceiling Diffuser
Swirl Diffuser
Perforated Ceiling Diffuser
Jet Diffuser
Square Ceiling Diffuser
Disc Valve Diffuser
Linear Bar Grill
Supply / Return Grill
Door Grill

Louvers

Aluminum Louver
Sand Trap Louver

Dampers

Volume Damper
Fire Damper
Smoke Motorized Damper
Shutter Damper
Pressure Relief Damper

Special Parts

Sound Attenuator
Plenum Box

Duct Works

Galvanized Steel Duct
Black Steel Duct
Stainless Steel Duct
Spiral Duct
Flexible Duct
Canvas
Flanges
Flexible Duct Connector



Khedr Trust

ALL AIR PRODUCTS



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