

2020
PRODUCTS

Product Catalogue

Circular Ceiling Diffuser



Khedr Trust
ALL AIR PRODUCTS

Circular Ceiling Diffuser products
are manufactured by



“Your comfort is
our priority”

www.khedr-eg.com





Models

- CCD-A
- CCD-B



Finish

- Standard Finish - White

Circular Ceiling Diffuser

Model Use

Khedr Model CCD Diffusers used for supply or Exhaust applications.

Flow Pattern

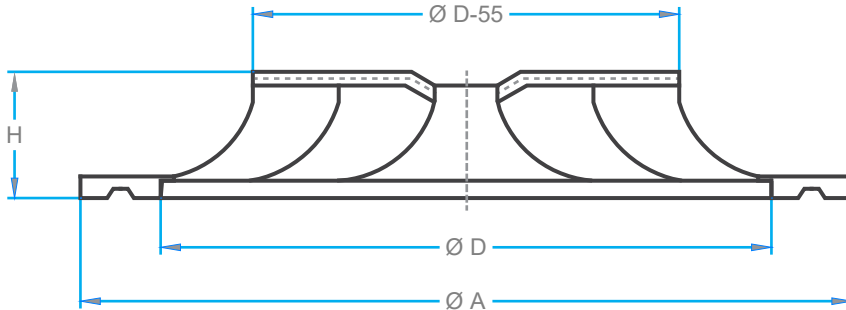
Maintains an unbroken horizontal flow pattern from maximum cfm down to minimum.

Two Types

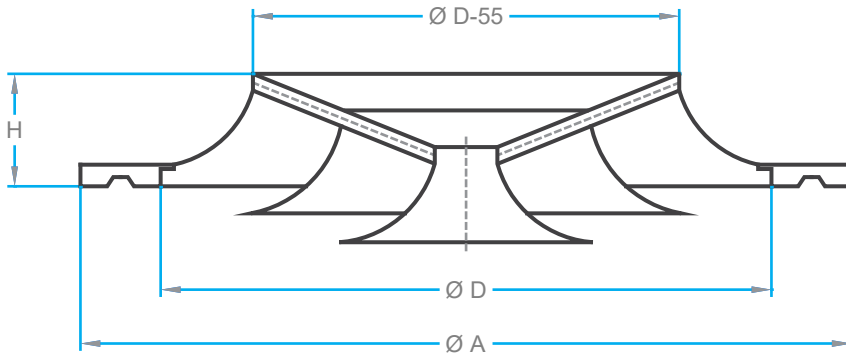
CCD Diffusers appears with two different types Fixed Diffuser Ring & Fixed Diffuser cone-form Rings.

- Dimensions

- Type (A) - Fixed Diffuser Rings



- Type (B) - Fixed Diffuser Cone Form Rings



Size	D (mm)	A (mm)	H (mm)
Ø 6	192	220	30
Ø 8	248	300	45
Ø 10	304	356	60
Ø 12	360	412	75
Ø 14	416	468	90
Ø 16	472	542	98
Ø 18	528	598	112
Ø 20	584	654	126

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- Performance data

Type (A) – Fixed Diffuser Rings

Neck Size "Inch"		V_k Outlet Velocity "FPM"								
		400	500	600	700	800	900	1000	1200	1400
		P_T Total Pressure "Inches water"								
		0.025	0.04	0.057	0.077	0.099	0.12	0.15	0.22	0.30
Ø 6	CFM	80	100	120	135	155	175	195	235	275
	T	2-4	3-5	3-5	4-6	4-6	5-7	5-7	6-8	6-8
	NC	< 20	< 20	< 20	< 20	23	26	30	35	40
Ø 8	CFM	140	175	210	245	280	315	350	420	490
	T	3-5	4-6	4-7	5-7	6-8	6-8	7-9	7-10	8-11
	NC	< 20	< 20	21	26	31	34	37	44	48
Ø 10	CFM	220	275	325	380	435	490	545	655	765
	T	5-7	5-8	6-9	7-9	8-10	8-11	9-12	10-13	11-14
	NC	< 20	< 20	< 20	21	26	30	33	39	45
Ø 12	CFM	315	395	470	550	630	705	785	940	1100
	T	5-7	6-9	7-10	8-11	9-12	10-13	10-14	11-15	13-16
	NC	< 20	< 20	< 20	22	26	30	33	39	45
Ø 14	CFM	430	535	640	750	855	965	1070	1285	1500
	T	6-8	7-10	8-11	9-12	10-13	11-15	12-16	13-17	15-19
	NC	< 20	< 20	23	28	32	36	40	46	49
Ø 16	CFM	560	700	840	980	1120	1260	1400	1680	1960
	T	7-10	8-12	10-13	11-15	12-16	13-17	14-18	15-20	17-21
	NC	< 20	< 20	22	27	31	35	39	44	49
Ø 18	CFM	710	885	1060	1240	1415	1595	1770	2125	2480
	T	7-11	9-12	10-14	12-16	13-17	14-19	16-20	18-22	19-24
	NC	< 20	< 20	21	26	30	34	37	43	48
Ø 20	CFM	870	1090	1310	1525	1745	1960	2180	2615	3050
	T	8-12	10-14	12-16	14-17	15-19	16-21	17-22	19-24	21-26
	NC	< 20	< 20	21	26	30	34	38	43	48

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

V_T Terminal Velocity "FPM"

T Throw "Feet"

V KOutlet Velocity "FPM"

P_T Total Pressure "Inch Water"

N Cre 8db room

- Performance data

Type (B) – Fixed Diffuser Cone Form Rings

Neck Size "Inch"		V _K Outlet Velocity "FPM"								
		400	500	600	700	800	900	1000	1200	1400
		P _T Total Pressure "Inches water"								
		0.021	0.033	0.047	0.064	0.084	0.106	0.131	0.189	0.257
Ø 6	CFM	80	100	120	140	160	180	200	235	275
	T	2-5	3-6	3-7	4-7	5-8	5-8	6-9	7-9	7-10
	NC	< 20	< 20	20	25	29	32	35	41	45
Ø 8	CFM	140	175	210	245	280	315	350	420	490
	T	3-6	4-7	4-9	5-10	6-10	6-8	7-11	9-12	10-13
	NC	< 20	< 20	21	26	30	33	36	42	47
Ø 10	CFM	220	275	325	380	435	490	545	655	765
	T	4-7	5-9	6-11	7-12	7-13	8-13	9-14	11-16	12-17
	NC	< 20	< 20	22	27	31	34	37	43	47
Ø 12	CFM	315	390	470	550	630	705	785	940	1100
	T	4-9	6-11	7-13	8-14	9-15	10-16	11-17	13-19	14-20
	NC	< 20	< 20	23	27	31	35	38	43	48
Ø 14	CFM	425	530	635	745	850	955	1060	1270	1490
	T	5-10	6-13	8-15	9-17	10-18	12-19	13-20	15-20	17-23
	NC	< 20	< 20	23	28	32	35	39	44	49
Ø 16	CFM	560	700	840	980	1120	1260	1400	1680	1960
	T	6-12	7-15	9-18	10-19	12-20	13-22	15-23	18-25	19-27
	NC	< 20	< 20	24	28	32	36	39	45	49
Ø 18	CFM	710	885	1060	1240	1415	1595	1770	2125	2480
	T	7-13	8-17	10-20	12-21	13-23	15-24	17-26	20-28	21-30
	NC	< 20	< 20	24	29	33	36	40	45	50
Ø 20	CFM	870	1100	1310	1525	1750	1960	2180	2615	3050
	T	7-15	6-19	11-22	13-24	15-25	17-27	10-28	22-31	24-34
	NC	< 20	< 20	25	29	33	37	40	45	50

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

- V_T Terminal Velocity "FPM"
- V_K KOutlet Velocity "FPM"
- N Cre 8db room
- T Throw "Feet"
- P_T Total Pressure "Inch Water"

- Selection Procedure

1. Determine the required CFM per each outlet as per cooling Load Calculation.
2. Determine the type of Rings from page (2).
Example : "Type (A) - Fixed Rings. "
3. Determine the recommended Outlet Velocity V_K according to application as per following Table.
4. Select the suitable 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	500-750
General Offices	500-800
Dept. Stores	1000-1250

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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 350 CFM as per cooling load calculations.
2. Required Type (A) - Fixed Rings Diffuser.
3. The recommended outlet velocity ranges from 500 - 750 FPM.
4. The size of air outlet :
 - A. Ø 10 " at 700 FPM.
 - B. Ø 12 " at 500 FPM.

Neck Size "Inch"		V _k Outlet Velocity "FPM"				
		400	500	600	700	800
		P _T Total Pressure "Inches water"				
		0.025	0.040	0.057	0.077	0.099
Ø 10	CFM	220	275	325	380	435
	T	5-7	5-8	6-9	7-9	8-10
	NC	< 20	< 20	< 20	21	26
Ø 12	CFM	315	395	470	550	630
	T	5-7	6-9	7-10	8-11	9-12
	NC	< 20	< 20	< 20	22	26

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- How to oprder

Type	CCD - A	CCD-A CCD-B	Fixed Diffuser Rings Fixed Diffuser Cone-Form Rings
Size	∅ 10	∅ " Inch"	
Finish	1	0 1 2	Aluminum White Color Other Colors
Damper	0	0 1	Without Damper With Damper

Circular Ceiling Diffuser products are manufactured by Khedr Trust Co.

Other Products are provided by Khedr Trust Co.

Diffusers & Grills

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

Louvers

- Aluminum Louvers
- Sand Trap Louvers

Dampers

- Volume Damper
- Fire Damper
- Smoke Motorized Damper
- Shutter Damper

Special Parts

- Sound Attenuator
- Plenum Box

Duct Works

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



Khedr Trust

ALL AIR PRODUCTS



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