

2020
PRODUCTS

Product Catalogue

Perforated Ceiling Diffuser



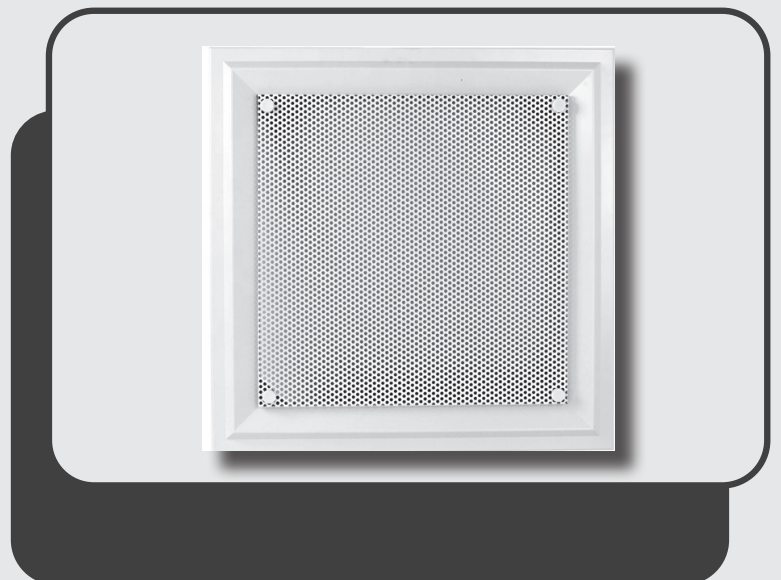
Khedr Trust
ALL AIR PRODUCTS

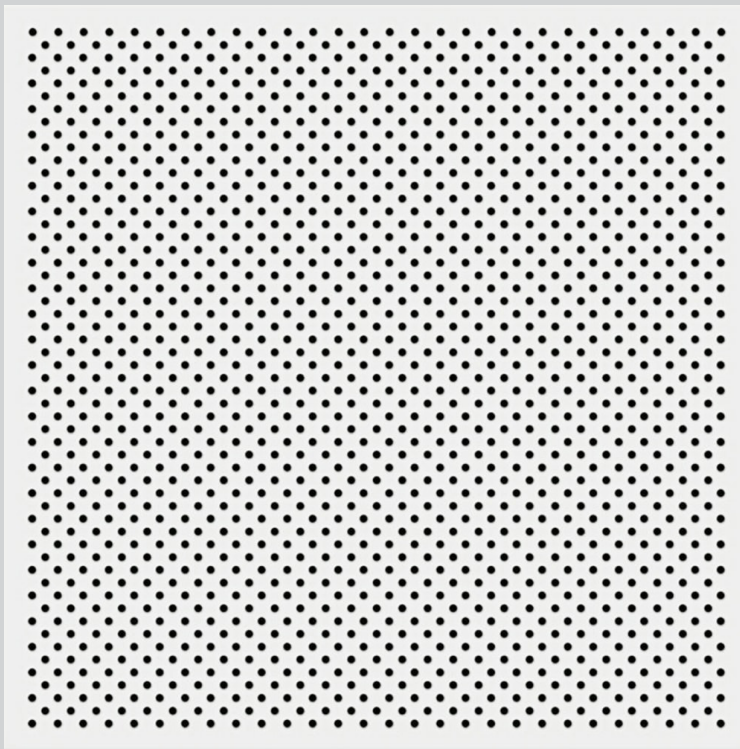
Perforated Ceiling Diffuser products are
manufactured by



“Your comfort is
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Models

- **St. Steel Models**
PCD-F / Flushed Face
PCD-D / Drop Face
- **Aluminum Models**
PCD-F / Flushed Face
PCD-D / Drop Face



Finish

- Standard Finish - White



Features

- Perforated face has 6mm diameter holes on 6mm staggered center.
- Round / Rectangular inlet collar (Neck).



Perforated Ceiling Diffuser

Model Use

Khedr Model PCD Diffusers is suitable to use with all clean room applications.

Unit Design

A tight, uniform blanket of air protect the ceiling against smudging.

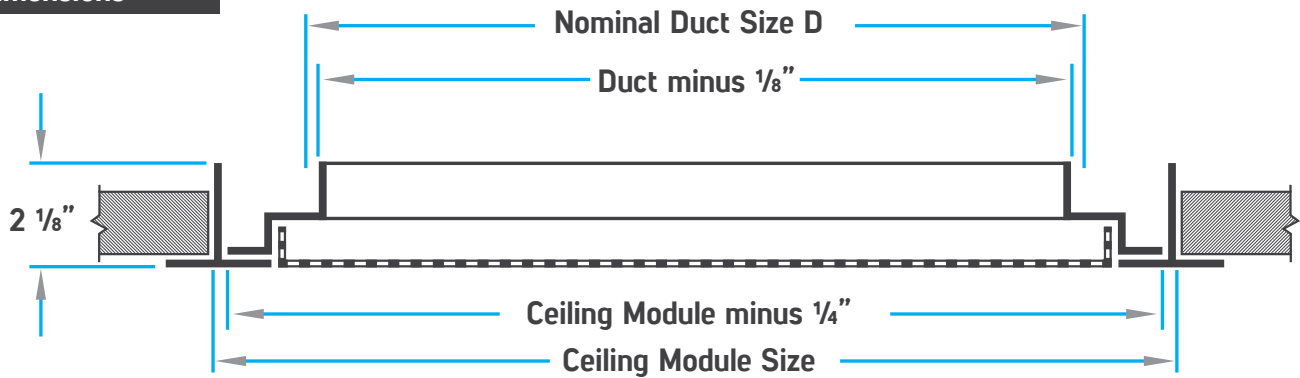
Appearance

Uniform face appearance with different neck sizes.

Perforated Face

Dropping the perforated face also gives access to the optional damper.

- Dimensions



- Performance data

Neck Size "Inch" /Outlet Area "Inch"		V _k Outlet Velocity "FPM"							
		300	400	500	600	700	800	900	1000
		P _T Total Pressure "Inches water"							
		0.01	0.03	0.05	0.07	0.10	0.13	0.17	0.21
6 x 6 A _k = 0.17	CFM	51	68	85	102	119	136	153	170
	NC	51	15	15	16	19	23	26	29
8 x 8 A _k = 0.33	CFM	99	132	165	198	231	264	297	330
	NC	15	15	15	16	19	23	26	29
10 x 10 A _k = 0.55	CFM	165	220	275	330	385	440	495	550
	NC	15	15	15	18	21	24	28	30
12 x 12 A _k = 0.83	CFM	249	332	415	498	581	664	747	830
	NC	15	15	16	19	22	26	29	32
16 x 16 A _k = 1.55	CFM	465	620	775	930	1085	1240	1395	1550
	NC	15	15	18	21	25	29	32	35
18 x 18 A _k = 1.99	CFM	597	796	995	1194	1393	1592	1791	1990
	NC	15	15	19	22	26	30	33	36
24 x 24 A _k = 1.74	CFM	522	696	870	1044	1218	1392	1566	1740
	NC	15	15	18	21	25	29	32	35

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- V_k Outlet Velocity "FPM"
- A_k Outlet Area "Feet²"
- P_s Static Pressure "Inch Water"
- NC re 8db room

- 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 400 CFM as per cooling load calculations.
2. The recommended outlet velocity ranges from 300 – 500 FPM.
3. The size of air outlet :
 - A. Size 12" X 12" at 500 FPM.
 - B. Size 16" X 16" at 300 FPM.

Neck Size "Inch" /Outlet Area "Inch"		V _k Outlet Velocity "FPM"		
		300	400	500
		P _T Total Pressure "Inches water"		
		0.01	0.03	0.05
12 x 12 A _k = 0.83	CFM	249	332	415
	NC	51	15	16
16 x 16 A _k = 1.55	CFM	465	620	775
	NC	15	15	18

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- How to oprder

Type	PCD-D	PCD-F PCD-D	Flushed Face Drop Face
Material	A	A S	Aluminum Steel
Size	24 x 24	L X W " Inch"	
Finish	1	0 1 2	Aluminum White Color Other Colors
Damper	0	0 1	Without Damper With Damper

Perforated 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



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ALL AIR PRODUCTS



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